Intelligence-Led Policing in New Zealand

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Abstract

The innovation life cycle within police organisations is poorly understood. This is despite 30 years of calls for police reform and numerous efforts to introduce radical innovation. Difficulties are associated with all major reform movements, including community-oriented, problem-oriented and intelligence-led policing (ILP). Significant levels of resistance to change are routinely encountered. We need to know more about the processes and factors associated with strategic innovation and change within police organisations. This thesis analyses the emergence of ILP within the New Zealand Police (NZP). I identify the key organisational, environmental and individual factors associated with the development of ILP; the interactions amongst these factors and their impact on the ILP innovation life cycle.

I interviewed key participants and observers and surveyed police officers at four research sites within the NZP that exemplified high and low levels of ILP innovation. I found that multiple nodes of leadership and individual leaders emerged as critical to initiating and sustaining the innovation life cycle. Managers’ superordinate commitment to crime reduction goals was vital to sustained innovation. Specific management arrangements supported innovation. Transformational leadership and participative and informal management processes stimulated the development of ILP. The effective use of technology, competent technical and social implementation of ILP, and development of innovation-friendly environments were also key factors supporting innovation.

Individual-level factors are central to the emergence of ILP. I found that strong innovation uptake is grounded in high levels of individual officer
knowledge of ILP, commitment to ILP and awareness of supervisor’s prioritising of ILP. These features translated into officer willingness to commit discretionary time to ILP and perform ILP behaviours. I also identified interactions between innovation and environmental factors. Healthy relations with local government are associated with innovation, and the adoption of ILP shapes positive officer attitudes to the local environment and weakens the influence of neighbourhood factors on officer behaviour. Strong innovation is associated with officer perception of more manageable demand for police services and less complex and more stable operational environments.

Officer resistance to change was seated in specialist groups and emerged where internal leadership networks of sufficient depth and breadth could not be established. Resistance was also associated with poor change management, weak technical implementation of ILP, and a failure to develop individual officer knowledge of and commitment to ILP.

My study has theoretical implications and identifies key focus areas for policy-makers who want to encourage public sector innovation. The goal setting of managers, multiple nodes of leadership, a concentration on critical factors and achieving key thresholds are especially important for successful innovation. In addition, a superordinate commitment to crime reduction stimulates both the development of ILP and the emergence of continuous innovation. Continuous innovation leads managers to address wider organisational barriers to effective police practice. Furthermore, at strong uptake sites these factors coalesced into a system of innovation focused on crime reduction. Overall, my study shows that despite significant challenges,
police organisations can achieve both ILP innovation and continuous innovation.
Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Chapter 1: Introduction

Innovation is a broad and multi-faceted concept, emerging in a variety of forms and affecting society in diverse and important ways. Innovation involves adopting something new with the intention of benefit or improvement (Damanpour & Schneider, 2006; Rogers, 2003). Hardly a day goes by without reports in the popular media describing how an innovative change will influence the lives of ordinary people. Innovation includes diverse changes from adopting new technology to rethinking social networking (Rogers, 2003). One of the most crucial aspects of innovation is the uptake of innovation within a social or organisational context. Uptake is the process of adopting an organisational innovation. Damanpour (1991) depicts organisational innovation as a new product, service, technology, process, structure, administrative system, plan or programme that an organisation implements to improve performance. Organisational innovations are transmitted discreetly or through sweeping reforms, take-overs and mergers, planned improvement or evolutionary development (Rogers, 2003).

The study of organisational innovation is a significant area of academic, business and policy interest (Damanpour, 1991; Kimberly & Evanisko, 1981; Rogers, 2003; Slappendel, 1996; Thomas, 2001; Webb & Cleary, 1994; Wolfe, 1994). Yet, in contrast with the wider innovation literature, the organisational context of police innovation is a comparatively under-researched topic (National Research Council, 2004). By way of comparison Rye and Kimberly (2007) systematically reviewed the health care and organisational literature between 1960 and 2005, identifying 55 empirical studies reporting the organisational determinants of health care innovation. Using wider criteria Fleuren, Wiefferink
and Paulussen (2004) reported 49 empirical studies assessing the determinants of organisational innovation in health care organisations between 1990 and 2000. In contrast the National Research Council (2004, p. 9) reports “little” research about innovation processes in police organisations. My own literature review confirms this. Even broadly defined there have been less than 10 empirical studies evaluating the determinants of organisational innovation in police organisations in the last 15 years.

Innovations in policing such as community-oriented policing (COP), problem-oriented policing (POP), intelligence-led policing (ILP) and performance management initiatives such as CompStat,¹ are arguably the best examples of recent innovative reforms in the policing. ILP emerged in the 1990s as a strategic innovation in response to the call for more business-like policing models (John & Maguire, 2003, 2004; Maguire & John, 2006). ILP originated in the United Kingdom in the 1990s where public sector reformers called for a focus on prolific offenders rather than on reported crime as a way to utilise police resources more effectively (John & Maguire, 2006; Ratcliffe, 2003; Ratcliffe, 2008; Ratcliffe & Guidetti, 2008). By the turn of the century, ILP grew into a fully-fledged policing model (Ratcliffe, 2003, 2008) making significant inroads into the vernacular of policing in the Western world (Ratcliffe, 2002). ILP seeks to use modern information management tools and management techniques to achieve the goals of policing (Tilley, 2003b). Ratcliffe (2003, p. 3) defines ILP as:

the application of criminal intelligence analysis as an objective decision-making tool in order to facilitate crime reduction and prevention through effective policing strategies and external partnership projects drawn from an evidential base

¹ Compstat - computer statistics or comparative statistics (Weisburd et al, 2003)
ILP is a strategic innovation that impacts on police organisational goals, work methods and relationships. It is not intended to be a static programmatic, administrative or technical innovation (National Research Council, 2004), but rather a dynamic strategic process that incorporates crime reduction goals and sets challenging evidence and effectiveness based standards for policing tactics and strategies (Ratcliffe, 2003).

The recent emergence of ILP presents a good opportunity to explore the emergence of a new policing innovation at an early stage in its life cycle. ILP is emerging in multiple locations internationally including Australia (Ratcliffe, 2003) New Zealand (Ratcliffe, 2005) the United Kingdom (John & Maguire, 2003) and the United States (Ratcliffe & Guidetti, 2008). This means lessons about ILP innovation from one jurisdiction can be transferred to another and issues like the effectiveness of ILP in reducing crime reduction can be evaluated internationally.

ILP is also a useful innovation to study because it represents more than a technical or administrative change to policing. ILP presents strategic challenges to police organisations which are likely to stimulate questions about the role of the police as well as generate supporting programmatic and managerial changes necessary to properly implement ILP (Ratcliffe, 2003; Ratcliffe and Guidetti, 2008). ILP also challenges the domination of the standard model of policing still favoured by police (Weisburd & Eck, 2004) and needs to overcome the traditional challenges to police innovation coming from specialist groups (Skogan, 2008), the police culture (Bowling & Foster, 2002) and resistance to change (Waddell & Sohal, 1998). Researchers frequently describe the difficulties police organisations have in adopting strategic
innovations (King, 2003; National Research Council, 2004). I now provide a brief outline of the rationale for my thesis research.

1.1 Challenges of innovation

Public, private, large and small organisations all face a myriad of challenges in creating opportunities for innovation, fostering and encouraging innovation, and managing change. Organisations need to nurture novel and embryonic ideas and carefully manage the uptake and development of innovation. Resistance to change is an ever-present concern (Coch & French, 1948; Dent & Galloway Goldberg, 1999; Waddell & Sohal, 1998). An extensive literature on innovation and change management sets out the variety of challenges that emerge throughout the innovation life cycle (see, for example, Damanpour, 1991; Dunphy, 1996; Ford, 2002; Kimberly & Evanisko, 1981; Kotter, 1995; Rogers, 2003; Schneider, 2003; Senge, 1990; Senior, 1997; Slappendel, 1996; Thomas, 2001; Webb & Cleary, 1994; Young, Charns, & Shortell, 2001).

The innovation life cycle explores how innovations develop from first knowledge to institutionalisation within organisations (Rogers, 2003). Innovation literature tackles how innovations diffuse (Rogers, 2003) and the processes and factors associated with the adoption and implementation of innovation (Damanpour & Schneider, 2006; Kimberly & Evanisko, 1981; Rogers, 2003; Waarts, van Everingen, & van Hillegersberg, 2002). Innovation research presents insights into the innovation life cycle including the role managers play and the influence of organisational size on innovation uptake (Damanpour & Schneider, 2006; Rogers, 2003). However, the study of organisational innovation is complicated with contradictory findings often confounding the research (Slappendel, 1996; Wolfe, 1994). It is important to
carefully specify the conditions of particular innovation research rather than generalise research findings too broadly (Light, 1998; Slappendel, 1996; Walker, 2007; Wolfe, 1994).

An important factor to consider when implementing innovation is resistance to change. Resistance to change involves employees’ actions or expressions of reservation by employees within an organisation that are designed to stop, alter or delay change (Waddell & Sohal, 1998). Early research considered resistance to change a discrete problem, a form of challenge to innovation that needed to be overcome (Coch & French, 1948; Dent & Galloway Goldberg, 1999). More recently, researchers recognised and described the complex and interactive nature of resistance to change (Lamb & Cox, 1999; Waddell & Sohal, 1998). Researchers now consider resistance to change as a standard component of the innovation life cycle, and focuses on understanding how resistance can be utilised as part of the whole innovation process (Waddell & Sohal, 1998).

Implementing innovation in the public sector is particularly challenging (Altshuler, 1997; Borins, 2001; Lipsky, 1980). The complications of politics, a media that enthusiastically reports failure and the absence of market-driven incentives can paralyse public sector innovation (Altshuler, 1997). Confusion about goals or loosely coupled goals and acceptable behaviours can undermine innovation efforts (Lipsky, 1980). The shortcuts and simplifications used to achieve routine frontline service delivery can create unanticipated problems (Lipsky, 1980). A particular challenge in the public sector is to move successful local or small-scale innovations to large-scale organisation-wide innovations.
Public sector innovation frequently fails to make this transition from small to large (Borins, 2001).

1.2 Innovation in policing

The innovation challenges faced by the public sector are exemplified in police organisations (Bayley, 1989; Goldstein, 1990; Kelling & Moore, 1988; National Research Council, 2004; Ratcliffe, 2005; Sparrow, Moore, & Kennedy, 1990). Police organisations epitomise the innovation challenges faced by the public sector. Historically police innovation is especially troubled by resistance to reform (Etter, 1995; Finnane, 1999b; Ford, 2002; Goldstein, 2003; Mastrofski & Uchida, 1993; Scott, 2003; Thurman & Lovrich, 1995; Skogan, 2008), a tendency to adopt innovations superficially (Allen, 2002; Weisburd et al., 2003), tensions between frontline officers and managers (Reuss-Ianni, 1983), and a conservative police culture (Chan, 1997; Foster, 2003). Research also shows that police organisations are unwilling to adopt strategic reform (Allen, 2002; Altshuler, 1997; Lipsky, 1980; National Research Council, 2004).

A specific issue for police innovation is the strong preference of police agencies for the “standard model” of policing. Weisburd and Eck (2004) note 30 years of criticism of the “standard model” of policing, where the staples of random preventive patrol, rapid response and routine criminal investigation are routinely criticised for failing to reduce crime or fear of crime. Police agencies favour traditional responses to crime problems and prefer law enforcement over other possible responses (Weisburd & Eck, 2004). As such, innovations in policing must overcome the natural inclination of police agencies for traditional responses and standard practice (James, 2003; National Research Council, 2004).
Another strong challenge to police innovation comes from resistance to change. Researchers describe how police officer resistance to change underpins the difficulties police agencies experience when trying to implement innovations such as COP and POP (Allen, 2002; Etter, 1995; Moore et al., 1999; Schneider, 2003). Indeed, scholars cite police organisations as notoriously resistant to reform (Etter, 1995; Finnane, 1999b; Goldstein, 2003; Lipsky, 1980; Mastrofski & Uchida, 1993; Scott, 2003; Skolnick & Bayley, 1986; Zhao, Thurman, & Lovrich, 1995). Skolnick and Bayley (1988), for example, suggest it is hard to think of an organisation more resistant to change than the police and describe a tenacious adherence to traditional norms and values. In Australia, Finnane (1999b, p. 188) describes how the potential to deliver improvements in Australian policing is limited by the “profound institutional conservatism of police forces”.

In the face of these challenges, police organisations remain under considerable pressure to innovate and reform. James (2003) highlights demands for greater police cost efficiency, changing technology, globalisation, changing crime patterns and the drive for more business-like approaches as stimulating reform in policing. Similarly, Ratcliffe (2002) sees the coupling of budgetary constraints with crime escalation in the 1970s and 1980s as driving a search for new policing approaches. Rosenbaum (2007) argues that the difficulties police faced in the 1970s and 1980s lead to a crisis of legitimacy and stimulated the emergence of exigent higher level strategic reforms like COP and POP.

Strategic innovations in policing involve changes in goals, work methods and relationships (Moore, Sparrow, & Spelman, 1996); a re-engineering of the
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way police undertake core activities directed towards more effective policing (King, 2000; National Research Council, 2004) the kind of innovation King (2000, p. 310) identifies as “radical”. As Rosenbaum (2007) suggests, recent examples of strategic police reforms include innovations such as COP and POP and more recently ILP.

Strategic innovations often incorporate programmatic, administrative and technical innovations (National Research Council, 2004). Programmatic innovations involve applying new tactics to deal with recurrent problems, a way of using existing resources to provide more effective policing (National Research Council, 2004). The use of mandatory arrest as a response to domestic violence is an example of police experimenting with a programmatic innovation (National Research Council, 2004).

Administrative innovations involve police experimenting with “new ideas about how to structure and manage their organisations” (National Research Council, 2004, p. 83). Police agencies have experimented with a wide variety of administrative arrangements in an attempt to control crime more effectively or deliver better or fairer community services. These have included recruiting from minority communities, devolving responsibility down the chain of command to middle managers and working to develop a wide range of partnerships (Moore, Sparrow & Spelman, 1996; National Research Council, 2004).

Technical innovations describe police efforts to use technology to improve services and are widespread in policing. Computers have streamlined police dispatch and record keeping (National Research Council, 2004). Detection and investigation has been shaped by technologies such as computerised fingerprint recognition and DNA tools (National Research Council, 2004). Other
technologies have seen digital cameras in police cars, changes in uniform and protective equipment and non-lethal weapons such as tasers introduced. Information technology has often been the major driver of change in policing (Moore, Sparrow, & Spelman, 1996; Rosenbaum, 2007; Skogan, 2005).

These innovations have created two waves of police reform (Rosenbaum, 2007). The period from 1980 to 2000 was characterised by the search for legitimacy and efficiency and saw the emergence of COP and POP. COP and POP emerged as part of reforms seeking to shift police agencies from remote, incident-driven bureaucracies to outcome-oriented and community-focused organisations (Bayley, 1989; Goldstein, 1990; Kelling & Moore, 1988; Sparrow, Moore, & Kennedy, 1990). However, the quality and magnitude of COP and POP reforms have disappointed (Bayley, 1989; Goldstein, 1990; Kelling & Moore, 1988). In particular, the appetite of police agencies for reform has been highly variable and change has been piecemeal rather than the wholesale reform advocates of COP and POP hoped for (Maguire, 1997; Maguire et al., 2003).

The second wave of strategic reform from 2001 to the present is underpinned by developments in information technology and growth in geographically focused crime research (Rosenbaum, 2007). Research evidence demonstrates that focused policing can be effective in reducing crime (National Research Council, 2004; Weisburd & Eck, 2004). The combination of research and cheap powerful information technology has encouraged initiatives such as CompStat and hot spots policing (Rosenbaum, 2007) and accelerated the development of ILP (Ratcliffe, 2002, 2003, 2005, 2008).
This move to ILP has proved to be a challenging strategic innovation for police. ILP dictates a move from the standard model of policing with a reactive, unfocused approach to “enforcing the law” (Weisburd & Eck, 2004, p. 44) towards a focused, analytical, goal-oriented approach to policing (Ratcliffe, 2003). Ratcliffe (2003) provides a practical model that can guide both the day-to-day operation and implementation of ILP (Figure 1.1). The model is simple but powerful. It defines the roles of key participants in the intelligence process (analysts and decision-makers) and describes the key processes involved (interpret, influence and impact).

The three processes involved in the model (see Figure 1.1) are the interpretation of the criminal environment by analysts (interpret), the capacity of analysts to influence decision makers (influence) and the ability to have a meaningful effect on the crime problem (impact). Ratcliffe (2003) describes his model as the “3I model:” (1) interpret, (2) influence and (3) impact. Ratcliffe’s (2003) 3I model presented in Figure 1.1 simplifies complex processes. First, interpreting the criminal environment involves using a range of techniques. Environmental criminology or the “crime sciences” (Tilley, 2003a) can be used to analyse crime data. These techniques enable predictions about future crime patterns and the development of a wide array of possible responses (Ratcliffe, 2008). Community problems underpinning crime and disorder problems can be identified and addressed (Ratcliffe, 2008). Prolific offenders can be identified and targeted (Ratcliffe, 2008). Second, influencing decision makers involves “selling” the intelligence product to decision-makers (Ratcliffe 2003). Decision-makers need to understand the importance of intelligence and how they should action the intelligence. The “influence” process is a particularly important component of the model. This is because it describes a critical internal working...
relationship. If analysts are unable to influence managers to shape the use of police resources in a manner likely to prevent or reduce crime, then ILP breaks down at this point. Finally, impacting on the criminal environment means delivering effective crime reduction through a broad array of strategies, tactics and solutions (Ratcliffe, 2003).

**Figure 1.1:** Ratcliffe’s intelligence-led policing and crime reduction model

![Ratcliffe's intelligence-led policing and crime reduction model](image)


The 3I model (Ratcliffe, 2003) takes operational shape through the leadership, management, administrative, technical and programmatic changes made to operationalise ILP inside a police organisation. As Ratcliffe (2008) illustrates ILP needs to be central to police activities. Regular crime and intelligence focused meetings need to take place. Intelligence structures need to be in place to action the directions of decision makers. Managers need to actively support the intelligence process and internal routes need to ensure the timely presentation of data for analysis.

Operational indicators of successful ILP implementation include the presence of a supportive and informed command structure; ILP at the heart of
an organisation-wide approach, and a broad suite of tactics being used, including prevention, disruption and enforcement (Ratcliffe, 2008). These features provide the basis of innovation related goals for police agencies wanting to implement ILP. They also underpin benchmarks so effective ILP can be distinguished. Appendix A describes the operational features of police agencies with advanced systems of ILP. Ratcliffe (2008, p. 235) suggests that these operational features can be used as “a standard against which we can assess the development and growth of intelligence-led policing environments”.

ILP has developed in many locations, but, as was the case with COP, the implementation of ILP has also experienced significant difficulties (Cope, 2004; Ratcliffe, 2005, 2008; Ratcliffe & Guidetti, 2008). Ratcliffe (2008, p. 213) observes that “it is easily possible for intelligence-led policing to fall by the wayside and become lost in the history of failed attempts of law enforcement to move away from the traditional focus on reactive, investigative policing”.

Difficulties highlighted in the literature include cultural clashes, knowledge gaps and role confusion (Cope, 2004; John & Maguire, 2003, 2004; Ratcliffe, 2005; Taylor, Kowalyk, & Boba, 2007; Tilley, 2003b). Researchers describe the cultural challenges civilian analysts face when dealing with their police colleagues; often analysts feel unappreciated by or clash with police officers (Cope, 2004; Taylor, Kowalyk, & Boba, 2007). Persistent knowledge gaps undermine the intelligence process. Often key decision-makers are uninformed about crime sciences or the fundamentals of effective strategies, making communication with analysts and effective decision-making problematic (Ratcliffe, 2004, 2005, 2008). Confusion about how ILP should operate persists. Often key participants, particularly decision-makers (Ratcliffe, 2003)
remain perplexed about their role or behave inconsistently (Ratcliffe, 2004, 2005; Ratcliffe & Guidetti, 2008).

The aim of this research project is to understand how and why ILP innovation was enthusiastically adopted by police in some locations and under some circumstances, but failed to take root in others. In particular, this research project seeks to understand how the challenges of innovation were overcome. These challenges include both the problems of innovation in the public sector and policing and the specific challenges presented by ILP.

1.3 Study of police innovation

The literature exploring innovation in policing is limited, especially in relation to more recent reforms (National Research Council, 2004). A body of literature examines the problems implementing COP (Bayley, 1989; Goldstein, 1990; Kelling & Moore, 1988) and some literature looks at POP (Eck & Spelman, 1987; Scott, 2000, 2003), largely in the United States. The evaluation of ILP has been limited largely to the United Kingdom (Cope, 2004; Maguire, 2000; Maguire & John, 2006; Ratcliffe, 2002, 2004, 2005). Moreover the literature generally focuses on the implementation of a single innovation, often at one site, and often using a single methodological approach. Evaluations of police innovation tend to be case studies and do not compare and contrast the importance of different variables in different contexts. Overall, the literature is not comprehensive, often treating the issue only superficially (National Research Council, 2004). For example, the convergence of organisational, environmental and individual factors and innovation is poorly understood. In particular, researchers understand little about how these factors influence the attitudes and behaviours of individual officers in respect of innovation. Overall,
there is little depth in our understanding of the innovation process in police organisations. The United States National Research Council (2004) identifies a lack of systematic research on the effectiveness of change strategies and little understanding of how the innovation process can be facilitated. These gaps are particularly evident where the innovation is strategic.

1.4 Research aims and questions

In 2004, the National Research Council in the United States called for greater understanding of innovation processes and organisational change in police organisations. My research project is a response to this gap in the police literature. My research project seeks to learn more about innovation life cycles in policing.

My research project aims to address three research questions. My first area of inquiry explores the factors that underpin the uptake of innovation and asks: What organisational, environmental and individual factors influence the adoption of ILP innovation in New Zealand police organisations? Related questions include: What are the drivers of ILP innovation? Does success in achieving organisational goals support continuing innovation? What are the key organisational strategies that support ILP innovation? How do environmental factors correlate with the adoption of ILP innovation? Are distinct individual factors strongly associated with the adoption of ILP? How do the particular demands of ILP (for example, adapting to technology, the quality of data bases, and the credibility of analysts, analytical quality and ILP literacy) correlate with ILP innovation? How is ILP innovation transmitted and learnt? How does the process of innovation uptake affect organisational, environmental and individual
variables? How important are charismatic leaders to the uptake of police innovation?

My second area of inquiry focuses on resistance to change. While innovation and resistance to change are related phenomena understanding the distinctions between innovation and resistance to change seeks to provide important insights into the innovation life cycle in police organisations. My project addresses the following questions: What organisational, environmental and individual are associated with resistance to change? Do other factors coalesce with resistance to change? How might the particular demands of ILP be associated with resistance to change? Is an organisation’s failure to achieve its organisational goals associated with resistance to reform? How important is charismatic leadership to overcoming resistance to innovation?

The third objective of my research project is to explore the continuous innovation life cycle in the NZP. Strategic innovations such as COP and POP are intended to enable police to be responsive to shifting patterns of crime through continual innovative (National Research Council, 2004). ILP is the latest strategy, providing police with a toolkit to meet the continual challenges of policing (Ratcliffe, 2008). Unfortunately, continual police innovation is rare, and the study of it is virtually absent from the literature on policing (National Research Council, 2004). Continuous innovation is also recognised as indispensable if police organisations are to fulfil their potential (National Research Council, 2004). My study explores the ILP innovation life cycle in New Zealand to determine whether and how the uptake of ILP stimulated continuous innovation.
1.5 Research sites

New Zealand provides an important and unique research environment in which to consider the ILP innovation life cycle. New Zealand operates one national police organisation. The NZP recruits to national standards, provides initial and advanced training to national standards, and has overarching national policy including general instructions and procedures that covers all aspects of policing including promotion, transfers, strategy. Within this broad framework local police districts and areas are encouraged to innovate and engage with communities and partners to reduce crime and improve community safety (New Zealand Police, 2002, 2003).

These arrangements permit variability in policing models operating within the NZP. There is sufficient flexibility in the application of policy and practice to allow for significant local variations in policing style. This allows for, and indeed encourages, individual districts and areas to use their initiative to address local crime and community problems and develop policing styles and strategies to suit community needs, within the broader organisational framework. Different policing models can operate within the same moderated organisational framework.

Many of the research difficulties associated with making comparisons across police organisations (such as differences in training, organisational

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2 New Zealand is divided into 12 police districts. A district commander manages each district. The district commanders operate as part of the Police Executive under contract to the Commissioner of Police. Each district has about 700–900 sworn staff. For more information, see the New Zealand Police website (www.police.govt.nz/district).

3 Areas operate as part of districts. Each area has an area commander who reports to the district commander. Area commanders manage about 100–150 sworn staff. For more information, see the New Zealand Police website (www.police.govt.nz/district).
history and recruiting) are controlled for through conducting research in the New Zealand policing environment. Because the NZP is a national police agency New Zealand police districts and individual officers share the same organisational history and background features. Other researchers have taken advantage of these features of the New Zealand policing environment (Ratcliffe, 2005; Winfree & Taylor, 2004).

My research project uses a national policing environment to explore key organisational, environmental and individual differences in the innovation life cycle associated with the strong and weak uptake of ILP innovation across four operational police areas. In particular, I examine the attitudes and behaviours of individual officers in these areas to identify factors supporting innovation and underpinning resistance to change. Key characteristics of the research sites are considered, including the nature and sequence of ILP-related changes implemented and attempted, the crime results associated with the changes or attempted changes, the organisational strategies developed to implement the changes, and wider environmental factors associated with the uptake of ILP. My study identifies the factors that have supported and constrained innovative reform within the NZP and provides insight into the dynamics that operate at different stages of the innovation life cycle.

In New Zealand, some police areas have been slowly introducing components of ILP for 10 years. The NZP governance model has allowed uneven development of ILP across the country, with some areas being
enthusiastic innovators and others ambivalent, resistant or unsuccessful innovators. This variability provides the basis for my study⁴.

1.6 My research approach

Slappendel (1996) identifies three approaches to innovation research in the literature: focusing on the role of individuals, particularly leaders in the uptake of innovation; assessing the influence of structural features such as organisational, environmental and individual factors; and exploring the impact of interactions between variables. I explore the innovation life cycle and resistance to change using all three approaches. My study explores the role of leaders in the uptake of innovation. I use an organisational, environmental and individual framework to identify key factors impacting on the uptake of innovation. I also consider innovation as a complex interactive process. My project explores how innovation and resistance to change develop in response to interactive processes. I consider how the uptake of innovation shaped officer attitudes towards organisational, environmental and individual factors and use both qualitative and quantitative methodologies to explore my research questions.

In the first component of my research, I explore the impact of key structural factors by surveying sworn officers at the four research sites. The survey assessed officer perceptions of and attitudes towards organisational, environmental and individual factors drawn from the innovation and police literature. The officer survey provides a quantitative framework for considering factors such as the influence of leaders and the interactive nature of innovation.

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⁴ I selected operational areas to participate in this study on the basis of Moore, Spelman and Young’s (1992) work, which evaluated three approaches to identifying innovations in policing. Appendix B describes the site selection approach.
uptake. I compare and contrast officer self reports of attitudes and behaviours between the sites with strong and weak innovation uptake.

In the second stage, I delved deeper into my research questions by conducting in-depth thematic interviews with stakeholders and key participants at the research sites. The interviews used factors identified from the literature as starting points, but allowed participants to tell their own stories. The interviews complemented and contextualised the data obtained through my survey of officers. The interviews allowed me to explore unique features of the New Zealand society, environment, policing context and organisation.

1.7 What’s to follow?

In the following chapters I use the innovation literature generally and the police literature specifically, to identify key factors likely to impact on the uptake of ILP innovation in New Zealand. This sets the scene for crafting my research project that explores these factors and related interactive processes across my operational police research sites.

My project is important because of the large gaps in the police innovation literature. I focus on a current policing innovation (ILP) which is emerging internationally and demonstrates considerable potential to deliver effective crime reduction and is an innovation worthy of close inspection as it develops. As such, my project is an important addition to the police reform agenda. Overall I hope this research project contributes to academic and theoretical knowledge about police innovation and provides practical insights for policymakers and police practitioners.
Chapter 2: Innovation

2.1 Introduction

The innovation literature suggests that innovation is difficult to achieve and yet highly valued (Rogers, 2003). Organisational innovation is seen as a major solution to increasingly competitive global markets and the increasing demands from customers (Damanpour & Schneider, 2006). Damanpour (1991) describes organisational innovation as a new product, service, technology, process, structure, administrative system, plan or programme adopted with the intention of enhancing performance. Rogers (2003) sees innovation more broadly as an idea or practice that is perceived as new and beneficial. “Newness” and “improvement” are the central themes of definitions of innovation across all disciplines and perspectives (Damanpour & Schneider, 2006; Rogers, 2003). Walker (2007, p. 2) defines public sector innovation as the process through which “new ideas, objects, and practices are created, developed or reinvented”. Yet the organisational innovation literature emphasises the need for clarity about the stage of innovation uptake in organisations, with movement through awareness and implementation to institutionalisation (Rogers, 2003).

In recent decades the study of innovation has become prominent and reveals a broad range of factors that explain the success and failure of innovation (Rogers, 2003). For example, research shows how large, open organisations innovate more successfully than centrally controlled formalised organisations (Rogers, 2003). Innovation research also shows how innovations diffuse across social systems and highlight the types of factors that influence the adoption or failure of innovations (Damanpour, 1991; Kimberly & Evanisko, 1981; Rogers, 2003; Young, Charns, & Shortell, 2001). Diffusion studies
converge on the characteristics of a new product or practice that determine the pace of adoption and the factors that influence individuals, social groups or organisations to adopt innovations (Wolfe, 1994).

Innovation studies also consider the factors and processes that influence innovation uptake in organisations (Damanpour, 1991; Kimberly & Evanisko, 1981; Rogers, 2003; Slappendel, 1996; Wolfe, 1994). These studies focus on how a wide range of organisational and environmental factors shape the uptake and development of innovation within organisations, addressing questions such as the role of different administrative and bureaucratic arrangements in supporting innovation (Damanpour, 1991; Kimberly & Evanisko, 1981; Wolfe, 1994). Innovation studies also consider how innovation uptake interplays with both the innovation itself and characteristics of the adopting organisation (Wolfe, 1994). Other approaches include a focus on the role of leaders and champions in promoting innovation (Howell & Higgins, 1990).

Innovation is a challenging field of research. Slappendel (1996, p. 115) notes that the relationship between variables are “complex and often contradictory”. Generating broad theoretical constructs has proven to be difficult. Researchers observe that to innovate successfully organisations are expected to be big and small, experienced and young, highly centralised and organically structured (Light, 1998; Walker, 2007).

In this chapter I review innovation more generally and police innovation literature in particular. This literature review is used to establish a research framework for my study and to identify the key factors and processes shaping the uptake of intelligence-led policing (ILP) innovation in New Zealand.
2.2 Organisations and innovation

Finding simple rules about innovation has been illusive and this is particularly true when considering organisational innovation. Wolfe (1994) describes the most consistent theme in organisational innovation research as inconsistency. Innovation scholars comment on the unique challenges of developing useful predictions about and explanations for innovation phenomena within organisations (Kimberly & Evanisko, 1981; Rogers, 2003). These challenges have led scholars to highlight the need for specificity in clearly defining organisational innovations (Rogers, 2003), describing the type of organisation (Walker, 2007), focusing on specific stages of innovation (Damanpour & Schneider, 2006; Van de Ven, Angle, & Poole, 2000) and considering interaction effects (Downs & Mohr, 1979; Slappendel, 1996).

Damanpour’s (1991) meta analysis explored the relationship between different types of organisational innovation and a variety of independent and moderating variables. In particular, Damanpour was concerned to explore if the apparent instability in predictors of innovation depending on the type of innovation being explored. Varieties of innovation explored included type of organisation, type of innovation in particular radical versus incremental innovation, stage of adoption and scope of innovation. Results suggested more stability in predictors of innovation than had previously been thought. The most influential moderators of innovation were the type of organisation (for example, profit or not for profit) and the scope of innovation (for example, the number or range of organisation-wide innovations being considered). Damanpour offers a wide variety of organisational factors and their predicted relationship to innovation in a range of innovation settings. Damanpour’s research predicts that police organisations (which fit his profile of service and not for profit)
undergoing radical innovation of high scope are negatively influenced by formalisation and centralisation but positively affected by managerial attitude to change. Damanpour (1992) also confirms a strong relationship between organisational size and innovation, with larger organisations tending to adopt more innovations.

Structural approaches have a strong tradition in innovation research and several innovation studies have explored organisational, environmental and individual factors associated with innovation. In a classic study, Kimberley and Evanisko (1981) assessed the individual, contextual and environmental factors influencing technical and administrative innovation in hospitals. They concluded that the most influential factor on both kinds of innovation was the size of the organisation. The next most significant factors, particularly for technical innovation, were the qualities (cosmopolitanism, accreditation and prestige, education level and tenure) of the responsible senior manager. Size has proven to be a robust factor, with larger organisations adopting more technical and administrative innovations than smaller organisations. Better educated and more cosmopolitan managers introduce more technical innovations.

The characteristics of senior managers have been a focus of innovation studies. These factors have shown some stability in explaining innovation in organisations (Damanpour & Schneider, 2006; Howell & Higgins, 1990; Kimberley & Evanisko, 1981; Rogers, 2003; Young, Charns, & Shortell, 2001). Young, Charns, and Shortell (2001) demonstrated the importance of senior manager factors in the sequence of adoption of innovation. The size of the organisation was a consistent factor in the adoption of innovation. However, in the early stages of innovation the age of the senior manager was negatively
associated with innovation and higher education was positively associated (Young, Charns, & Shortell, 2001); later adopters were influenced by prior exposure to the innovation and strong networks. In the later adoption period managers appeared to be reacting to normative pressure for change amongst their peer group (Young, Charns, & Shortell, 2001).

Damanpour and Schneider (2006) demonstrated the importance of manager attitudes and leadership behaviour in the public sector. From a sample of 1200 public sector organisations in the United States, Damanpour and Schneider (2006) concluded that the positive attitude of leaders towards innovation was more important than environmental factors and managers demographic characteristics in determining the adoption of innovation. Manager attitudes were almost as important as organisational factors in shaping organisational innovation (Damanpour & Schneider, 2006). Managers’ leadership behaviour within organisations is also critical. Innovation in organisations is frequently linked to managers who motivate and inspire employees, encourage new ideas and effectively manage change (Bass & Avolio, 1994; Damanpour & Schneider, 2006; Yukl, 1999). Rogers (2003) summarises the innovation literature and identifies how independent organisational variables relate to organisational innovativeness. These characteristics are set out in Table 2.1.
### Table 2.1: Independent variables related to organisational innovativeness

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Relationship to organisational innovativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual (leader) characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>Attitude toward change</td>
<td>Positive</td>
</tr>
<tr>
<td><strong>Internal characteristics of organisation</strong></td>
<td></td>
</tr>
<tr>
<td>Centralisation</td>
<td>Negative</td>
</tr>
<tr>
<td>Complexity</td>
<td>Positive</td>
</tr>
<tr>
<td>Formalisation</td>
<td>Negative</td>
</tr>
<tr>
<td>Interconnectedness</td>
<td>Positive</td>
</tr>
<tr>
<td>Organisational slack</td>
<td>Positive</td>
</tr>
<tr>
<td>Size(^1)</td>
<td>Positive</td>
</tr>
<tr>
<td><strong>External characteristics of the organisation</strong></td>
<td></td>
</tr>
<tr>
<td>System openness</td>
<td>Positive</td>
</tr>
</tbody>
</table>

1. Size tends to be a surrogate measure of several dimensions that lead to innovation and can represent total resources, slack resources, technical expertise of employees, and organisational structure (Rogers, 2003, p. 379).


Overall, more centralised and formal organisations tend to be less innovative than less centralised and less formal organisations. Interconnectedness is the “degree to which the units in a social system are linked by interpersonal networks” (Rogers, 2003, p. 412). Organisations in which there is more social interconnection between workers are frequently more innovative. Stronger social networks support innovation uptake. Organisational slack describes the levels of uncommitted resources in an organisation (Rogers, 2003). Frequently, larger organisations have significant uncommitted resources, and there is a strong association between size and organisational slack (Rogers, 2003). Rogers (2003) argues that innovative organisations are led by managers who have positive attitudes to change, are more complex,
larger, with more organisational slack, and are more internally interconnected and open. I revisit the importance of these variables in Chapter 3.

While Rogers’ (2003) overview is a useful starting point, the innovation literature is replete with examples where general findings have proved unhelpful as research has moved from looking at the broad and general to specific examples in detail (Damanpour & Schneider, 2006; Downs & Mohr, 1979; Walker, 2007, Wolfe, 1994). For example, Waarts, van Everingen, and van Hillegersberg (2002) describe how early or late adopters of innovation are influenced by different clusters of factors. Early adopters tend to be driven by internal strategic factors whereas later adopters are more focused on practical implementation issues. Rogers (2003) notes a similar variance and suggests that initiation and implementation sub-processes are important for understanding overall innovation. For example, low centralisation, high complexity and low formalisation may facilitate innovation in the early stages but they make later implementation more difficult (Rogers, 2003). Rogers (2003) suggests that the generally low correlations of the independent variables described in Table 2.1 are explained by this duel functioning of variables at different stages of the innovation process. Therefore, more centralised organisations may struggle to initiate innovations but once innovations are commenced, organisations with a strong central core will be more successful in implementing innovations. Strongly centralised organisations can organise and institutionalise innovation more effectively. In this way factors may support innovation at one stage but inhibit it at another and effectively have a duel role during innovation uptake.
These complexities highlight the need to clearly define the innovation phenomena being investigated against key dimensions and suggest that researchers need to accurately describe the type of organisational innovation (Rogers, 2003; Wolfe, 1994). Damanpour (1988, 1991) clusters organisational innovations into administrative and technical, and radical and incremental categories. Administrative innovations are concerned with changes to organisational management. Technical innovations concern mechanical features used to produce a service, including information technology. Radical innovations describe significant change often including boundary or goal changes. Incremental innovation involves modest improvements designed to meet organisational goals. Being clear about the type of organisation is important. Whether the organisation is large or small, young or old, public or private sector, or organically managed or strongly centralised are all important features affecting innovation uptake (Burns & Stalker, 1961; Rogers, 2003; Walker, 2007; Wolfe, 1994).

Focusing on the stage of the innovation process has helped elucidate the research. The stages of innovation uptake have focused broadly on initiation and implementation (Damanpour & Schneider, 2006; Rogers, 2003; Wolfe, 1994). Overall, four stages can be identified: initiation, implementation, sustainability and institutionalisation (Damanpour, 1991; Rojek, 2002; Roger, 2003). Interaction effects are important in shaping the innovation process. How factors interplay at the different stages of innovation uptake shapes the overall innovation process (Downs & Mohr, 1979; Slappendel, 1996). The role of individual factors and processes may alter through the various stages of innovation uptake. What works to help initiate innovation may prove unhelpful in seeking to finally institutionalise that same innovation.
Skilful implementation and competent change management is critical in supporting innovation uptake (Kotter, 1995; Schneider, 2003; Senge, 1990; Senior, 1999; Thomas, 2001; Webb & Cleary, 1994). Linton (2002) identifies five groups of factors linked to successful innovation implementation: organisational structure, technology, project management, divisibility (the ability to divide the project into smaller parts), social interactions and social networks. In particular, technologies that require less learning or are familiar have a smoother path to implementation (Linton, 2002). Linton (2002) emphasises the use of project management techniques to reduce uncertainty and increase control and the importance of social learning and social networks as a consistent feature of the innovation literature. The interconnectedness of internal and external social networks, especially the social networks of senior managers are important for innovation uptake in police organisations (Linton, 2002; Weiss, 1997).

Specific concepts from the innovation literature could have explanatory power in the context of strategic police innovation. Rogers (2003) describes the problems of diffusing preventative innovations – innovations adopted in the hope of reducing the probability of some future event. Difficulties arise because of the time lag or uncertainty of benefit, so the relative advantage of the innovation may be delayed and or remain unclear. This seems to reflect some of the challenges of strategic police innovation. Community-oriented policing (COP), problem-oriented policing (POP) and ILP may be worthwhile endeavours but given uncertainty over underlying features such as police goals (Bradley, Walker, & Wilkie, 1986), reaching agreement on benefits of new models of policing remains problematic. We see this tension in policing between the reactive standard model of policing (Weisburd & Eck, 2004) and
more preventative approaches like COP and POP. Another concept noted by Rogers (2003) is the “innovation needs” paradox: those who stand to benefit the most from innovation are generally the last to adopt. This concept intuitively rings true for police organisations. How often are agencies most in need of reform or those that stand the most to benefit from new initiatives the last to adopt? It is possible that the most troubled agencies will wait for broad national and international norms to change before themselves moving to innovate.

2.3 Approaches to innovation research

These non-rational aspects of organisational behaviour make the study of innovation challenging and at times frustrating for researchers seeking broad theoretical knowledge. Issues such as politics, unanticipated behaviour and the dynamic interactive nature of the innovation process make it difficult to establish rules for innovation (Slappendel, 1996). These difficulties have been exacerbated by some researchers taking narrow approaches to the study of innovation. For example, structural approaches to innovation have been criticised for ignoring the role of charismatic leaders in supporting innovation (Howell & Higgins, 1990; Slappendel, 1996).

Slappendel (1996) summarises the topic areas, perspectives and methodological approaches taken to the research of organisational innovation. Table 2.2 summarises the three main perspectives and their relative strengths and weakness. The individualist and structuralist approaches reflect the wider tension in organisational literature between humanistic explanations of organisational behaviour that focus on the actions of individuals and more deterministic explanations that focus on structural and environmental explanations (Ott, 1989). The interaction perspective reflects a more dynamic
interplay between actors, structural and environmental factors (Slappendel, 1996).

Individual explanations start from the premise that individuals are “the major source of innovation in organisations” (Slappendel, 1996, p. 110). Individuals are self-directed and guided by their own motivations and rational intentions. This approach is seen in the focus on the traits and behaviours of leaders (Howell & Higgins, 1990; Kimberley & Evanisko, 1981). Individual approaches have been criticised for minimising the role of elites and networks of leaders and for putting insufficient emphasis on those who resist innovation (Slappendel, 1996).

In contrast, the structural perspective focuses on the role of organisational factors as the main influence on organisational innovation. The organisation is seen as part of a wider environment that is also impacting on innovation uptake (Benson, 1977). Structural approaches are prominent in both the general literature (Damanpour & Schneider, 2006; Downs & Mohr, 1979; Waarts, van Everingen, & van Hillegersberg, 2002; Walker, 2007) and police literature (Hughes & Jackson, 2007; Vitale, 2005; Zhao, Thurman, & Lovrich, 1995). Structural approaches have been criticised for a tendency to treat structural features as “objective realities” while the “processes by which organisational structures and patterns are generated and sustained are ignored” (Slappendel, 1996, p. 114). Structural approaches have also been criticised for failing to adequately address the complex interplay between structural and environmental factors (Wolfe, 1994).

Emerging from these critiques has been the development of a focus on innovation as an interactive process. Downs and Mohr (1979) first outlined the
challenges of overcoming the complexity and interaction in innovation research. They called for a greater focus on decision points and the factors affecting the different stages of innovation (Downs & Mohr, 1979). The interactive perspective calls for research to specify the conditions under which the actions of both purposeful actors and structural factors occur or interact. The perspective focuses on the dynamic nature of innovation and the changes that occur to the innovation, individuals and organisations during the innovation process (Slappendel, 1996). The interactive process is itself subject to criticisms. The interactive perspective promises a lot but can fail to deliver, becoming overwhelmed by qualitative data that is beyond sensible description (Slappendel, 1996). The approach can reply on case study methodologies that are criticised for being time consuming and failing to develop generalisable theory (Yin, 2003).

Slappendel (1996) summarises the three main perspectives taken to innovation research. Table 2.2 describes the features of these perspectives.

Table 2.2 categorises the three perspectives of innovation research according to basic assumptions, conceptualisation of innovation and the innovation process, core concepts and principal research methodology. The table compares and contrasts the three approaches to provide a parsimonious comparative framework.
Table 2.2: Main features of the three perspectives of innovation research

<table>
<thead>
<tr>
<th>Features</th>
<th>Individualist</th>
<th>Structuralist</th>
<th>Interactive process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic assumptions</td>
<td>Individuals cause innovation</td>
<td>Innovation determined by structural characteristics</td>
<td>Innovation produced by the interaction of structural influences and the actions of individuals</td>
</tr>
<tr>
<td>Conceptualisation of an innovation</td>
<td>Static and objectively defined objects or practices</td>
<td>Static and objectively defined objects or practices</td>
<td>Innovations are subject to reinvention and reconfiguration. Innovations are perceived</td>
</tr>
<tr>
<td>Conceptualisation of the innovation process</td>
<td>Simple linear, with focus on the adoption stage</td>
<td>Simple linear, with focus on the adoption stage</td>
<td>Complex process</td>
</tr>
<tr>
<td>Core concepts</td>
<td>Champion</td>
<td>Environment</td>
<td>Shocks</td>
</tr>
<tr>
<td></td>
<td>Leader</td>
<td>Size</td>
<td>Proliferation</td>
</tr>
<tr>
<td></td>
<td>Entrepreneur</td>
<td>Complexity</td>
<td>Innovation capability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formalisation</td>
<td>Context</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Centralisation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strategic type</td>
<td></td>
</tr>
<tr>
<td>Research methodology</td>
<td>Cross-sectional survey</td>
<td>Cross-sectional survey</td>
<td>Case studies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Case histories</td>
</tr>
</tbody>
</table>


This study draws from, and uses the best features of, all three perspectives.

The centre piece of this study uses a structuralist approach by analysing officer perspectives on the main organisational, environmental and individual factors affecting the uptake of innovation. This approach is supported by qualitative interviews with key respondents, which allow for the influence of factors such as the role of charismatic leaders or interactions between innovation uptake and changes to other factors to emerge (see Chapter 4). For example, the impact of innovation uptake on officer attitudes towards environmental factors can be
addressed. Overall, this research conceives innovation as an interactive process. In this way features such as resistance to change can be explored and more complex theories can be developed and shaped by context, structure and individuals. This approach to the research questions allows for unique features and theoretical constructs to emerge. This chapter now moves from a discussion of the general innovation literature to the efforts of scholars exploring the uptake of innovation by police organisations.

### 2.4 Police innovation

The study of police innovation mirrors the same research streams as the general innovation literature. Studies of police innovation have focused on three areas. Diffusion studies explore how police innovation is communicated and diffused between police agencies (Korteland & Bekkers, 2008; Roberts & Roberts, 2007; Skogan & Hartnett, 2005; Weisburd & Lum, 2005; Weiss, 1997; Zhao, 1996). Other studies have used individual or structural approaches to consider police organisations’ adoption of innovation (Hughes & Jackson, 2007; Morabito, 2008; Vitale, 2005; Zhao, Thurman, & Lovrich, 1995). A final theme has been useful summaries of the barriers, factors and processes associated with police agencies’ adoption of innovation (Braga & Weisburd, 2007; King, 2000; Skogan, 2008; National Research Council, 2004).

Weiss (1997) examined communication factors influencing the introduction of a programmatic reform in American police agencies. Weiss (1997) concluded that cosmopolitanism, operationalised as the participation of police executives in policy communities, could lead to either direct adoption of innovation or increased innovation through imitating peers. Informal networks were an important wellspring of innovation for police executives. Roberts and
Roberts (2007) examined the structure of informal communication between police agencies. Propinquity and similarity enhanced communication. Agencies viewed as relative experts were also consulted. The effects of this communication on actual innovation were unclear (Roberts & Roberts, 2007).

Other police diffusion studies have emphasised the importance of enhancing legitimacy, functionality and knowledge in supporting the diffusion of technical innovations. Korteland and Bekkers (2008) examined the factors supporting the diffusion of police to public SMS\(^5\) text alerting in Holland. They pointed to perceived functional utility and enhanced police legitimacy as aiding innovation uptake. Larger police forces with more slack resources were also able to adopt more quickly. Weisburd and Lum (2005) explored the diffusion of crime mapping and conclude that concerns about legitimacy and the effectiveness of police practice enhance diffusion. Greater interaction with researchers and knowledge about crime sciences and environmental criminology are also important. In Chicago, Skogan and Hartnett (2005) distinguish between factors associated with adoption and utilisation. The characteristics of key leaders, involvement in cosmopolitan networks and familiarity with the technology tend to support adoption. Actual use was determined by organisational resources and experience in using the technology. The use of the technology to support the traditional function of detectives is also important.

An important process for police innovation, and one that underpins many of the drivers described above, is reflected in the idea of social learning. Social learning is the informal process of learning about innovation within the social

\(^5\) SMS – Short Message Service, a texting protocol.
environment, rather than learning that occurs more formally in institutions (Linton, 2002; National Research Council, 2004; Rogers, 2003). Non-random patterns in general innovation adoption are attributed to social learning. A typical pattern of innovation adoption is “S” shaped with early adopters setting the stage for later adopters. This is followed by a spike in adoption or sudden rapid diffusion then a plateau (Rogers, 2003). Research suggests that early adopting general and police organisations and individuals tend to have particular qualities. These include being more cosmopolitan, being better educated, and having broader and more diverse social and learning networks (Kimberly & Evanisko, 1981; National Research Council, 2004; Rogers, 2003; Young, Charns, & Shortell, 2001).

Social learning identifies a significant aspect of diffusion of innovations for police organisations (Rogers, 2003). The two aspects to research exploring social learning are the experience of senior management in learning or communication leading to innovation and the adoption of innovation at the level of the individual worker. Also of importance is the social process involved in learning at the individual level. Rogers describes the social construction that needs to go on to address the kinds of questions that individuals need answered, such as what changes will mean to them and how they will be affected. The meaning of particularly strategic change will be negotiated over time through social interaction. Given the type of individuals in police organisations and the type of organisations and cultures in which they operate, this process may be particularly important.

The influence of environmental factors and organisational size on the adoption of innovation within police organisations has been explored (Morabito,
Morabito (2008) for example, concluded that organisational size and associated slack resources were important in adopting COP along with the form of local government. Most community factors were not important in predicting the uptake of COP. Of concern was the finding that federal funding may have “overpowered” the role of community characteristics in influencing the adoption of COP (Morabito, 2008, p. 20). This study was further complicated, as studies of strategic police innovation often are, by the observation that most agencies had not adopted the central tenets of community policing. “Tension” existed between adoption and implementation (Morabito, 2008, p. 20). Agencies were keen to adopt COP because of enhanced funding but on the ground implementation was inconsistent.

In contrast other studies have supported the influence of community and environmental factors on the uptake of COP in the United States. Zhao, Thurman and Lovrich (1995) for instance, concluded that the impact of environmental factors was important to police uptake of COP. An unstable and complex organisational environment stimulated the uptake of community policing. Likewise Vitale (2005) concluded that environmental pressures in the form of a crisis of legitimacy drove the development of the quality of life policing in New York.

In the same way as innovation research generally (Rogers, 2003), efforts have been made to categorise types of police innovation. King (2003) and the National Research Council (2004) describe different categories of police organisational innovation: operational, administrative, technological and strategic. Strategic innovation represents major efforts to reform policing. The
National Research Council (2004, p. 84) defines strategic innovation as innovation that:

seeks to redefine and reprioritize the purposes that the police are trying to achieve, their most important methods for achieving the desired results, and the key working and reporting relationships that exist within the police on the one hand, and between the police and other agencies of government and the community on the other. Strategic innovations in policing may entail or require a great many other innovations of the programmatic, administrative, and technical type in order to be implemented successfully. But what distinguishes them as strategic is the radical challenge they pose to traditional definitions of police purposes and operations.

The most obvious examples of strategic innovations are COP, POP and more recently ILP. The National Research Council (2004) characterises the levels of uncertainty that have surrounded COP and POP regarding the kind of innovation they represent. Some police organisations have treated COP, for example, as a programmatic reform instituting foot or bicycle patrols; others have seen it as an administrative reform appointing officers to specialist positions. However, the National Research Council (2004) notes the much grander vision of COP and POP proponents for reform, a vision that is genuinely strategic and characterised by King (2003) as radical reform.

What defines COP, POP and ILP as radical or strategic reform is a commitment to what the National Research Council (2004, p. 95) describes as being “continually innovative”. These strategic reforms are not intended to deliver a one-off change in the way police departments operate. They are intended to redesign police organisations in such fundamental ways that they can deal not only with the problems that are immediately evident but have the organisational agility to meet the demands of unforeseen, novel or atypical problems. There is a strong element of future proofing and equipping police organisations with adaptable skills.
Of course the challenges in achieving this kind of strategic innovation are numerous and seem to be especially difficult for police organisations. Rojek (2003) identifies a lack of understanding about innovation in police organisations and especially how POP might become institutionalised. Reform can be captured to reinforce existing organisational arrangements (Weisburd, Mastrofski, McNally, Greenspan, & Willis, 2003) or be partially implemented if it conflicts with existing bureaucracy (Willis, Mastrofski, & Weisburd, 2004). Even more worrying are the motivations of some police organisations in apparently adopting reform. Worrall (2003, p. 81), drawing a conclusion similar to that of Morabito (2008) who found central funding overpowered the influence of communities, suggests police organisations might be “in it for the money”. Worrall (2003) found that the availability of grants was the strongest factor explaining police organisations moving to community policing.

Even when new information technology presents an opportunity to reform the outcome can be disappointing. Chan, Brereton, Legosz and Doran (2001) found that where traditional practices remained unchallenged the effect of introducing new information technology amounted to entrenching existing manual processes, leaving established practices unchanged. Other studies exploring police adoption of information technology have made similar findings (Hughes & Jackson, 2007; Nunn & Quinet, 2002).

Braga and Weisburd (2007) have provided an insightful summary of police reaction to innovation. They conclude that “police most easily adopt innovations that require the least radical departure from their hierarchical paramilitary organisational structures, continue incident-driven and reactive strategies, and maintain police sovereignty over crime issues” (Braga & Weisburd, 2007, p. 17).
Technical, programmatic and administrative innovations that support or do not threaten these features fare better than strategic innovations that do. Police remain extraordinarily wedded to reactive policing models, what Weisburd and Eck (2004) call the “standard model” of policing. The standard model focuses on random preventive patrol, rapid response to calls for service and after the fact investigation (Weisburd & Eck, 2004). The inertia of police in the face of strategic reform is significant. As the National Research Council (2004, p. 98) notes “there are some forces acting on thousands of local police departments that push them toward conformity with some kind of professional norm”. When changes are adopted, they proceed rapidly with police agencies internationally adopting new norms, at least superficially (National Research Council, 2004).

An example of this process is the adoption of COP. The move from a professional model to COP policing happened quickly (National Research Council, 2004). The National Research Council (2004) suggests there is a change trigger among police agencies, but how and why change happens is not well understood. What is required is a better understanding of the forces that constrain innovation but permit change at some juncture. There is a need to understand how these forces might be harnessed to sustain strategic and continual innovation (National Research Council, 2004).

While the drivers of innovation in for-profit organisations tend to be profit and market focused (Linton, 2002) or based on the identification of need (Rogers, 2003), innovation in police organisations is driven by a variety of factors. This diversity of factors and potential motivations adds to the complexity of studying police innovation. The National Research Council (2004, p. 99) identifies potential sources of police innovation to include:
Innovation by edict – based on court decisions and laws.
Innovation through research – published research on innovations
Innovation as a confluence of problems and solutions
Innovation stimulated by local government
Innovation through professional, accrediting and auditing organisations
Innovation as a process of social learning

These sources of innovation reflect the literature on innovation in organisations more generally. Rogers (2003), for example, points to three kinds of innovation decisions that organisations can make. Optional decisions describe voluntary innovation; collective decisions describe consensus in an organisation or social system; and authority decisions describe imposed innovation. All of these kinds of decisions are seen in the drivers of police innovation.

The National Research Council (2004, p. 5) also recognises the pressing need for an enhanced understanding of the actual innovation process in police organisations and calls for more research to improve understanding in this area:

The committee recommends research on the police organization, innovation processes, and organisational change … the committee has found little research about the innovation process and how it can be facilitated. There is likewise little systematic, cross-agency research on the extent and effectiveness of organizational change strategies in policing, or on the role of leadership in securing lawful policing.

This study responds to these gaps in the research by investigating the uptake and development of ILP in the New Zealand Police. ILP is a radical or strategic innovation (National Research Council, 2004) likely to encourage associated technical, administrative or programmatic innovations. Once fully adopted, ILP may also promote ongoing innovation within adopting police agencies due to unremitting demands of crime reduction and the search for
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evidence-based solutions that deliver results. I focus on the implementation stage of ILP innovation and employ a mix of structural, individual and interactive research approaches. My study identifies how key factors, processes and actors interact and shape the uptake of innovation in police organisations.
Chapter 3: Police Innovation

3.1 Introduction

A tradition in the police literature uses organisational, environmental and individual level factors to understand police behaviour. Organisational factors are especially important in understanding police innovation. How police are organised greatly influences how they perform (Bayley, 2002) and innovation is pursued through organisational changes such as new policy, practice, training or leadership (National Research Council, 2004; Rogers, 2003). Environmental factors such as economic circumstances, neighbourhood conditions and the quality of police community relations influence and constrain police behaviour (Crank & Langworthy, 1992; Klinger, 2004; Maguire, 2003; National Research Council, 2004). Individual factors are concerned with how the attitudes, abilities and characteristics of individual police officers affect their own conduct and overall police behaviour (Mastrofski, Worden, & Snipes, 1995; National Research Council, 2004; Scott, 2003).

The police literature identifies important challenges to innovative police reform. The individuals attracted to police work are often males drawn to a perceived macho occupation, who are politically, morally and socially conservative (Bowling & Foster, 2002; Reiner, 2000). These individuals and the situations in which they find themselves generate an organisational culture described as cynical, isolated and action oriented (Foster, 2003). The police culture has its own norms, values and attitudes that can be reflected in the deleterious actions of street-level police (Goldsmith, 1990) or as part of a street-level police culture in an oppositional power struggle with management cops who have their own norms and values (Reuss-Ianni, 1983). Moreover, police
organisations are highly political, bureaucratic, centralised, extremely layered and rule bound (Maguire, 1997; Moore & Stephens, 1991; Skolnick & Bayley, 1988). In this environment, innovations such as problem-oriented policing (POP) and community-oriented policing (COP) have struggled to develop as reformers had hoped. Explanations for difficulties implementing innovation within police organisations emerge from this politicised, bureaucratic environment. POP, for example, has experienced difficulties, including rapid turnover of staff, middle management paying lip service to POP, the re-prioritising of resources away from POP, and SARA\(^6\) methodology being seen as inconsistent with action orientation of front-line policing (Scott, 2003; Townsley, Johnson, & Pease, 2003).

In Australia and New Zealand similar themes and issues emerge. Bayley (1989) noted obstacles to implementing COP in Australia. These included problems with definition, a lack of overall resource and strategic urgency, and no understanding of how to incorporate COP into the day-to-day work of most police officers (Bayley, 1989). Sarre (1996) concluded that implementing COP in Australia remained a formidable task. Often the crime prevention component of POP and COP in Australia was misunderstood. Police had difficulties consulting, understanding their role and overcoming the police culture (Sarre, 1996), or remained wedded to small-scale COP with numerous organisational and managerial constraints on the development of strong community policing (Fleming & O'Reilly, 2007).

In Australia and New Zealand technology-led police reform has encountered major difficulties. In New Zealand important changes in information technology during the late 1990s were designed to herald significant police reforms (Duncan, Mouly, & Nilakant, 2001). However, these reforms were abandoned following significant resistance to change and contractual disputes (Ayling & Grabosky, 2006; Duncan, Mouly, & Nilakant, 2001; Small, 2000). For the New Zealand Police (NZP) this led to a ministerial inquiry into the reforms and a consequent crisis of legitimacy (Ayling & Grabosky, 2006; Small, 2000). Hughes and Jackson (2004) argue that Australian police have struggled to come to terms with developing information technology to support the uptake of ILP. Resistance to change and internal police politics have undermined the effective use of technology and the development of internal cultural changes needed to support the uptake of ILP (Hughes & Jackson, 2004). Even in the information era (Rosenbaum, 2007), Hughes and Jackson (2004) argue that police approaches to technology in Australia are more consistent with the professional model of policing.

In spite of the difficulties in achieving police innovation and reform, research demonstrates that focused police reforms can deliver more effective policing (National Research Council, 2004; Weisburd & Eck, 2004). In Australia, Mazerolle, Rombouts and McBroom (2006) and Chilvers and Weatherburn (2004) demonstrated the effectiveness of strategic performance regimes in reducing crime in Queensland and New South Wales. These findings support research in the United States demonstrating the efficacy of focused policing strategies and tactics (Weisburd & Eck, 2004). However, while focused reforms have demonstrated their effectiveness, the research points to considerable variability in the uptake and quality of focused policing initiatives such as
problem solving and in the analytical techniques necessary to support these initiatives (Mazerolle, Rombouts, & McBroom, 2006; Weisburd & Eck, 2004). In Australia, for example, research points to unevenness in the development and application of crime mapping and analysis techniques, the quality of partnerships and the use of problem-solving approaches (Mazerolle, Rombouts & McBroom, 2006). Innovation uptake was “piecemeal” and the researchers suggested there was an urgent need to “promote and institutionalise problem-oriented and partnership policing across all districts” (Mazerolle, Rombouts & McBroom, 2006, p. 6). My research project aims to learn more about the police innovation life cycle and, in particular, why innovation uptake frequently remains “piecemeal” (Mazerolle, Rombouts & McBroom, 2006, p. 6).

One model of focused policing reform that has emerged internationally over the last decade is ILP (Ratcliffe, 2003, 2008). Ratcliffe (2003) suggests that ILP is gaining currency in Australia through the efforts of local Commissioners and the demands of organisational performance regimes. In New Zealand a reading of police corporate documents might lead to a conclusion that the NZP had implemented ILP (New Zealand Police, 2003). Yet an analysis of police practice in 2003 revealed a wide variety of implementation difficulties (Ratcliffe, 2005). These difficulties included variance in structure, inaccurate data recording, inconsistent training, confusion about intelligence products, and lack of commitment to, and understanding of, the goals and processes of ILP (Ratcliffe, 2005). Similarly, a government review of ILP in New Zealand identified wide variability in intelligence standards and inconsistencies in reporting crime and recommended the NZP evaluate the effectiveness of ILP and better co-ordinate the dissemination of consistent ILP practice (Office the Auditor-General New Zealand, 2006).
How police innovations, such as ILP, emerge and develop is an important and developing area of academic research. The National Research Council (2004) in the United States published major review findings concerning the broad issues of fairness and effectiveness in policing. As part of its review the National Research Council (2004) noted there was limited research describing the process of innovation and reform within police organisations. In particular the council suggested that it was important to understand: (1) what causes or allows police organisations to embrace a strategic change such as COP or POP; and (2) what causes or allows police organisations to “become the kind of continuously innovative organisation that seems necessary for them to achieve their full potential” (National Research Council, 2004, p. 96). The council recommended research into how the innovation process could be facilitated and the effectiveness of organisational change strategies (National Research Council, 2004). My research study responds to these research recommendations and endeavours to fill some important gaps in police innovation research.

3.2 Organisational factors

The behaviour of organisations and how they deal with change are two topics that have generated substantial interest in both the popular and academic literature. A prodigious range of theoretical propositions and advice is available (Blum & Naylor, 1968; Hummel, 1994; Smith, 1996; Thomas, 2001; Van Maanen, 1998; Webb & Cleary, 1994) that offers different perspectives and core assumptions (Ott, 1989). “Systems approaches” focus on the organisation as a dynamic system, examining how changes in one part of the system influence the whole (Harrison & Shirom, 1999). The “structural perspective”
intelligence-led policing in New Zealand emphasises structure, the division of labour and the use of rules to manage (Ott, 1989). Overall, approaches to organisational theory can be divided into two groups. One group of approaches sees people in organisations as needing control, coercion and highly structured environments. The other group takes a human relations perspective, seeing people in organisations as motivated by higher order needs and willing, under the right circumstances, to take on considerable responsibility (Dessler, 1994).

Early efforts to understand the behaviour of police organisations included Wilson's (1968) typology of police departments. Wilson (1968) demonstrates how the preferences of organisational managers, enacted through varying levels of professionalism and bureaucracy, influenced the behaviour of police officers. These organisational arrangements provided a typology of policing styles. The “watchman style” was characterised by low professionalism and saw officers emphasising order maintenance. “Legalistic” police forces emphasised professionalism and high levels of bureaucracy. Within these agencies officers engage in more law enforcement behaviours. The legalistic style encourages officers to see law enforcement as their main role and is associated with higher levels of arrests for minor offending and more issuing of traffic tickets. “Service departments” are professional but not highly bureaucratic. They intervene frequently but not with formal enforcement activity such as arrest. They tend to operate to protect their homogenous communities from outsiders.

While the literature examining police organisational arrangements has developed considerably in the last 40 years (Maguire, 2003; National Research Council, 2004) the same cannot be said for the study of police response to
innovation and change (National Research Council, 2004). Accounts of resistance to change in police organisations are frequently couched in general terms and are unclear and not linked to theoretical or explanatory frameworks (Skogan, 2008). Resistance is often characterised as police pushing back against externally imposed change (Skogan, 2008). The literature often relies on long lists of barriers to innovation, some of which are specific to police, others apply more generally to the public sector. Skolnick and Bayley (1988), for example, report difficulties implementing COP, including resource limitations, assessment problems and difficulties with command accountability for COP initiatives. Numerous other problems were reported, including the inertia of police unions, unrealistic public expectations, isolation of new initiatives, commitment to the two-officer car, traditional assumptions about patrol strategies, and conflicting internal and external ideas about the police role and commitment to reactive policing (Skolnick & Bayley, 1988).

These examples of change difficulties can be linked to both environmental and organisational factors. Environmental pressures, in particular relationship factors and the need to service constituencies, are likely to underpin problems such as unrealistic public expectations, difficulties with unions and external conflicts about the role of police. However, organisational factors dominate, in particular, loose coupling where publicly stated goals bear little relationship to the operational behaviour of police officers (Lipsky, 1980; Maguire & King, 2004; Mastrofski, Ritti, & Hoffmaster, 1987; Weisburd et al., 2003). Numerous examples demonstrate how public commitments to COP are sometimes very loosely coupled to the operational behaviour of police officers (Bayley, 1989; Skolnick & Bayley, 1988). Organisational loose coupling is evident in problems such as commitment to the two-officer car, traditional assumptions about patrol
strategies and commitment to reactive policing. This organisational loose coupling can also be linked to implementation difficulties such as resource limitations and difficulties with command accountability. Skolnick and Bayley (1989) describe in essence, a good example of police presenting outwardly the administrative goal of delivering COP, while activity systems within the organisation remain unaligned and permit little meaningful reform to occur.

Other key organisational factors shaping officer behaviour include levels of bureaucracy, professionalism and organisational size. Smith (1984) pointed to the importance of organisational context predictably influencing arrest decisions, finding that differing patterns of bureaucracy and professionalism varied with differences in arrest decisions. Mastrofski, Ritti and Hoffmaster (1987) used Wilson’s (1968) framework to consider how organisational arrangements influenced police behaviour in relation to drink driving. Findings emphasised the difficulty of maintaining managerial control over officer discretion as the size of police organisations increased. Mastrofski et al. (1987) concluded that loose coupling between stated goals and actual officer behaviour was less prevalent in smaller organisations, but a significant issue in larger police organisations. Mastrofski, et al. expressed doubts about the ability of reform movements to reduce loose coupling in large police organisations.

3.2.1 Organisational framework

The focus of my study is on understanding the factors associated with the uptake of ILP innovation and how these factors interact and influence the innovation life cycle. I evaluate these factors and their interactions from a variety of standpoints, focusing on police officers, but integrating perspectives from supervisors, managers and community partners. The innovation life cycle
is drawn from Rogers (2003) seminal text. The innovation life cycle describes the dynamic process of innovation uptake, which progresses through a series of stages. These stages proceed from knowledge and awareness of an innovation; through assessment, evaluation and learning about the innovation; this is followed by implementation of the innovation and concludes with routinisation and institutionalisation (Rogers, 2003, p. 170). At any point during the life cycle the adoption decision can be revised and the innovation abandoned.

Recent innovation research has focused on systems of innovation (Consoli, 2007; Edquist, 2001; Tether & Metcalfe, 2003). The innovation life cycle describes the factors and processes that influence the stages of innovation development within an organisation. A system of innovation is characterised by concentrating on a “contingent focal problem” which “acts as a focusing device” (Tether & Metcalfe, 2003; p. 438). A system of innovation is dynamic; coalesces around a particular problem or set of problems and generates solutions. System of innovation research considers how these dynamic systems arise and change nationally, across industries and within organisations (Edquist, 2001). I will use both the innovation life cycle and the innovation systems approach to assess the uptake of ILP innovation in New Zealand. In particular I will consider whether the uptake of ILP at any of my research sites developed into a “problem centred innovating system” (Tether & Metcalfe, 2003; p. 437).

My research methodology uses officers from operational police areas within a national police agency. This approach ensures that many organisational features previously studied by police scholars are controlled for. Features such
as organisational age, origin and history, size, vertical differentiation, spatial differentiation, functional differentiation and centralisation (Maguire, 2003; Maguire & King, 2004; National Research Council, 2004) are mandated nationally and standardised across the country or shared by the operational police areas in this study. For example, vertical differentiation as reflected in the rank structure is standardised within New Zealand. Organisational history and functional differentiation such as the employment of detectives or community constables are shared features. Organisational features such as technology are provided to national standards, but how local police areas use technology is open to local interpretation and development.

Against this backdrop, I have distilled from the innovation, organisational and police literature key organisational factors likely to affect innovation uptake. These factors include leadership, use of technology and organisational culture. I discuss these organisational factors important to innovation below.

### 3.2.2 Organisational goals

Goals describe the objectives of an organisation, the purpose for which the organisation exists. Organisational goals may change and can be used to judge the success or failure of an organisation (Boyne, 2003; Simon, 1964). Yet goals are problematic for police organisations. The connection between police goals and outcomes is poorly understood and there are frequent loose couplings between actual behaviour and administrative goals (Lipsky, 1980; Mastrofski, Ritti, & Hoffmaster, 1987; Maguire & King, 2004).

Changing goals means expanding or contracting the domain of an organisation or breadth of its goals (Maguire & King, 2004). Changing goals can generate resistance to change (Skogan, 2008). Individuals may accept or
reject goal changes. Rejection of new goals is a particular problem for police
where the standard police model of rapid response and after-the-fact
investigation is so embedded (Weisburd & Eck, 2004) and where the actual
behaviour of officers is highly discretionary and not readily visible (Becker et al.,
1996; Bowling & Foster, 2002; Dejong, Mastrofski, & Parks, 2001; Engel &

In addition, researchers have made strong arguments that the goals of
dueoutstanding have developed to support the means (such as rapid response and
after-the-fact investigation) rather than the ends of policing; what Goldstein
(1979) calls the “means over ends syndrome”. For example, police have
become wedded to rapid response as a goal in itself, rather than as a means to
achieving a larger goal like crime reduction (Eck, 2006; Goldstein, 1979). A
further concern is goal rejection by partners, political masters and the public or
other constituencies, which can lead to a crisis of legitimacy (Skogan, 2008). If
the organisation, leadership, management or culture opposes goal changes
then a variety of strategies can be used to obstruct reform.

A strategic innovation such as ILP requires changes to organisational goals.
One threat to strategic reform is the use of goal changes as a defensive
mechanism. Weisburd et al. (2003) assessed the impact of CompStat reform
on strategic problem solving in police organisations. Weisburd et al. (2003)
describes a willingness on the part of agencies adopting CompStat to
accommodate goal changes to include crime reduction. However, Weisburd et

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7 CompStat – Computer Statistics. CompStat is “most frequently understood by its
most visible elements … up-to-date computerized crime data, crime analysis, and
advanced crime mapping as the bases for regularised, interactive crime strategy
meetings which hold managers accountable for specific crime strategies and
solutions in their areas” (Silverman, 2006, p. 268).
al. (2003) linked police acceptance of a goal change to the view that CompStat changes reinforced traditional approaches to policing, and concluded (p. 451):

Compstat is appealing precisely because it holds out the promise of innovation in police organisation, strategies, and tactics but does not demand a revolution in the organisational structure of American policing … rather, it preserves—indeed, claims to reinvigorate—the traditional hierarchical structure of the military model of policing, a structure that has been attacked by a powerful reform wave over the last two decades.

So while crime reduction was accepted as a goal, the scope for innovation was limited to responses that reinforced traditional police reactions to crime problems and police hegemony over crime (Weisburd et al., 2003). ILP as defined by Ratcliffe (2003, p. 3) mandates that police commit to the goal of “crime reduction and prevention”. Police also need to commit to the goal of using “effective policing strategies and partnerships drawn from an evidential base” (Ratcliffe, 2003, p. 3). These are challenging and measurable goals. Crime reduction and prevention is readily measurable, and effective strategies can be evaluated by their utility. The focus on effective strategies suggests a need for ongoing innovation to meet crime reduction goals. It seems unlikely that the repeated applications of the same strategies to crime problems will have continuing crime reduction success. Seriously adopting ILP-related goals will support the uptake of ILP and, if diligently pursued, further innovations in support of crime reduction.

As in many public sector organisations, the setting, changing and using of goals to stimulate and monitor performance is difficult for police. As Boyne (2003) notes goals may be ambiguous, poorly described and difficult to measure. Goals may be used defensively (Weisburd et al., 2003) and the connection between goals and actual behaviour can be loosely coupled (Lipsky,
1980; Maguire & King, 2004; Mastrofski, Ritti, & Hoffmaster, 1987). Fully adopted, ILP requires a commitment to crime reduction and prevention (Ratcliffe, 2003) as a key goal. The extent to which crime reduction is accepted and promoted as a legitimate goal is likely to be an important factor affecting the adoption of ILP.

### 3.2.3 Boundaries

Changes in boundaries are changes in the way an organisation separates itself from its environment. A boundary change can include a change in membership or merger with another organisation (Maguire & King, 2004). The concept of organisational boundaries is described as the level of “system openness” in the innovation literature by Rogers (2003). As with the problems seen with changing goals, police organisations struggle to make more than cosmetic changes to their boundaries. For example, efforts to change organisational boundaries to incorporate shifts to COP are frequently frustrated with police resisting more than superficial changes to incorporate partners in planning and decision making (Long, Wells, & De Leon-Granados, 2002; Scott, 2000).

Several factors underpin the boundary defensiveness of police organisations. The police culture is associated with suspiciousness, social isolation and group loyalty (Paoline, 2003; Reiner, 1997). This traditional view of police culture holds that culturally it is difficult for police to accommodate new membership (Foster, 2003; Paoline, 2003; Reiner, 1997). In addition, Maguire (2003) argues that police organisations use strong boundary demarcation to buffer themselves from complexity and uncertainty in the environment. Both
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culturally and organisationally police prefer to maintain strong organisational boundaries.

Fully adopted, ILP stimulates changes to police organisational boundaries. ILP often requires acceptance of civilian staff undertaking important analytical roles within police organisations. Civilians are not always accepted in analytical roles and often encounter resistance and clash with sworn officers (Cope, 2004; Taylor, Kowalyk, & Boba, 2007). ILP also expands police organisational boundaries by promoting evidence-based partnerships focused on crime reduction (Ratcliffe, 2003). This stimulation of boundary changes through the uptake of ILP should see the emergence of meaningful crime reduction partnerships with community groups and local government. Successfully negotiating these boundary transitions and, in particular, managing any resistance to change or defensiveness on the part of officers will facilitate the uptake of ILP.

The success of ILP uptake within my study sample will be influenced by the ability of police areas to incorporate ILP-related boundary changes. Efforts to achieve more open boundaries may be undermined through resistance to change or avoidance behaviour (Long, Wells, & De Leon-Granados, 2002; Scott, 2000). ILP-related crime reduction goals are more likely to be achieved with open boundaries supporting the development of ILP through strong partnerships (Ratcliffe, 2008). Boundary changes in support of ILP innovation will require careful management, but if successfully negotiated are likely to positively influence innovation uptake.
3.2.4 Formalisation and management style

Formalisation describes the concentration of administrative features such as centralised decision making, rule making, specialisation and internal arrangements used to accomplish organisational tasks (Maguire, 1997; Mastrofski, Ritti, & Hoffmaster, 1987). The level of formalisation within a police organisation describes the weight of the police administrative apparatus as experienced by police officers (Maguire, 1997; Mastrofski, Ritti, & Hoffmaster, 1987). The introduction of a strategic innovation such as ILP necessitates changes in the administrative arrangements of the adopting police area (Ratcliffe, 2008). The type of rules, procedures and structural arrangements used to support ILP has important implications for innovation uptake. Both the actual changes in administrative arrangements designed to support ILP and how these changes are introduced will be important in determining the overall uptake of ILP.

An adjunct to the levels of formalisation within an organisation is the kind of management style managers adopt. The approach managers take in their routine interactions with staff is an important factor in determining the overall organisational environment and contributes to the readiness of staff to participate in and accept innovation (Eck & Spelman, 1987; Goldstein, 1990; Lurigo & Skogan, 1994; Toch, 2008). Management style gauges the extent to which officers feel they can contribute to and participate in the management process. A strong body of research suggests that a participative management style is associated with successful police innovation (Beck & Wilson, 1997; Dick & Metcalfe, 2001; Eck & Spelman, 1987; Goldstein, 1990; Lurigo & Skogan, 1994; Toch, 2008; Wood, Fleming, & Marks, 2008).
Recently, scholars have argued that engaging officers as change agents in the innovation life cycle is likely to avoid resistance to change and encourage the uptake of innovation (Sklansky & Marks, 2008; Toch, 2008; Wood, Fleming, & Marks, 2008). If officers are engaged and participate in planning, successful reform can emerge (Sklansky & Marks, 2008; Toch, 2008; Wood, Fleming, & Marks, 2008). Particularly promising is evidence suggesting that even highly resistant or problem officers can be “turned around” using this approach (Toch, 2008). The involvement of academics combined with an overall focus on establishing a collaborative working environment can also support the development of participatory management (Wood, Fleming, & Marks, 2008).

While participatory approaches look promising in supporting innovation, the weight of evidence demonstrates that participatory approaches are far from the norm. Police scholars point to high levels of formalisation and concentrated administrative structures as major barriers to police innovation (Maguire, 1997). These arrangements have been subject to persistent calls for reform (Goldstein, 1990; Kelling & Moore, 1988; Moore & Stephens, 1992; Skolnick & Bayley, 1988). High levels of formalisation are a particular obstacle for strategic reforms such as COP and POP, because these reforms require flexible and nuanced responses to challenging community problems.

Researchers have called for a wide array of reforms to police administrative arrangements, including decentralisation of decision making, elimination of unnecessary rules and procedures, allowing more space for generalists and a reduction in specialisation, de-layering the rank structure and greater civilianisation (Maguire, 1997). These changes are seen as necessary to allow space for reforms to emerge and to alleviate the burden of political,
bureaucratic, centralised and extremely layered administrative arrangements (Maguire, 1997; Maguire, 2003; Moore & Stephens, 1991; Skolnick & Bayley, 1988;). This means reducing “mountains of rules, piles of forms, and rigid standards of conduct” (Maguire, 2003, p. 17).

Unfortunately studies examining police administrative arrangements and organisational structure have found little evidence of widespread change to support reforms such as COP and POP (Maguire, 1997; Maguire, Shin, Zhao, & Hassell, 2003). This finding suggests that rather than COP and POP being adopted as strategic reform with logical consequences flowing into administrative arrangements, they are being adopted as simple programmatic or administrative changes with no consequential changes in key organisational arrangements (National Research Council, 2004). Some researchers conclude that police use complex administrative arrangements to defend against intrusion by an array of environmental factors, including innovation and reform (Maguire, 1997, 2003).

Falcone, Wells and Weisheit (2002) describe an “ideal type” police administrative apparatus. Falcone et al. examined the behaviour of small-town police organisations in the United States. In departments with less than 25 staff they found informally structured organisations with low levels of bureaucracy. Staff typically worked co-operatively, sharing work and administrative responsibilities. They also operated as generalists rather than specialists, performing a wide range of tasks. Falcone et al. found that small-town police agencies reported trusting relations with the community, effective informality, a focus on improving quality of life in their communities and, despite a low tech approach, high clearance rates. They suggest larger departments should adopt
the small-town model “replicating the structures and activities responsible for the success of small-town police” (Falcone, Wells, & Weisheit, 2000, p. 381).

One aim of reforming police administrative arrangements is to support changes focusing police on attempting to change people rather than merely “process” people (Maguire, 2003). Police have been criticised for labelling and processing people into simple predetermined categories. Officers will quickly characterise and process a drunk person without making any effort to change the person. A hospital on the other hand, might look to cure the underlying alcohol addiction that led to the drunkenness in the first place (Lipsky, 1980; Maguire, 2003; Moore, Sparrow, & Spelman, 1996;). Maguire (2003, p. 88) suggests:

the shift from traditional styles of policing to community policing type strategies introduces an element of technological indeterminacy into police organisations ….. the shift to a less routine, less determinate, people-changing style of policing has distinct implications for formal organisational structure.

Maguire (2003) suggests police organisations should become less vertically and functionally differentiated as they move to introduce more simplified and generalised structures to undertake more non-routine duties. Maguire argues that non-routine duties will require organisations to reduce centralisation, administration and formalisation. These kinds of administrative changes are aimed at supporting strategic innovations such as COP and encouraging police to move from “production lines to job shops” (Moore, Sparrow, & Spelman, 1996, p. 274).

ILP focuses on both controlling the behaviour of prolific offenders and using problem-solving solutions to change people where this approach is supported by evidence (Maguire, 2000; Ratcliffe, 2003, 2008). Full uptake of ILP should
be evidenced by a focus on preventing crime (Ratcliffe, 2008). One key way to achieve that is to use evidence-based strategies, most often in partnerships with other agencies and community groups, to change offenders. My study evaluates how the adoption of ILP in New Zealand has changed the administrative apparatus in four NZP areas to support nuanced or individualised responses to offender management.

In New Zealand the uptake of ILP will shape and precipitate change in the local administrative apparatus of adopting police areas. Reductions in levels of formalisation and the weight of the administrative apparatus are likely to be associated with a more participative management style. The administrative apparatus should be tailored to meet the needs of ILP and aspects of the apparatus might show more of a people-changing focus as well as changes that support evidence-based crime reduction. Less formalisation should be observed, as this should enhance the flow of information within the organisation. The paperwork burden on officers might be streamlined to facilitate local information exchange and focus officers more on “what works” to achieve crime reduction. More co-operative approaches and sharing of administrative responsibility might be evident. Strong ILP uptake is likely to promote changes in the administrative apparatus and management style of ILP-adopting police areas within the NZP.

### 3.2.5 Technology

In broad terms, technology is concerned with how an organisation accomplishes its work, the processes and systems used to achieve organisational objectives (Maguire, 2003). Over recent decades the information technology component of technology has begun to dominate the systems and
processes police organisations use (Rosenbaum, 2007). The emergence of data-driven computer-based policing approaches such as CompStat and hot spots policing, illustrate the importance of information technology to contemporary policing (Rosenbaum, 2007). Policing scholars argue that one of the key roles modern police undertake is processing information, acting as information gatekeepers by using information themselves or passing information to other agencies (Ericson & Haggerty, 1997). Rosenbaum (2007) argues that police have entered an information technology era and the successful integration and application of information technology is critical to modern policing.

Success in integrating information technology into police organisations is important for strategic reforms such as POP and ILP (Ratcliffe, 2001, 2002, 2004; Tilley, 2003b). ILP in particular relies on the use of information technology to analyse information and develop the mapping and analytical products ILP relies on (Ratcliffe, 2005, 2008; Tilley, 2003b). Studies have identified difficulties for police in both managing information technology and integrating information technology into new policing models. Typical problems to emerge include poor data quality and inadequate data flow (Ratcliffe, 2005; Tilley, 2003) and lack of quality analysis (Townsley, Johnson, & Pease, 2003). The well-executed integration of information technology into police organisations can overcome these problems. Poor integration is likely to result in weak analysis and data management problems will undermine the effective adoption of ILP within NZP areas. If new technology in support of ILP is accompanied by sympathetic processes, appropriate training and thoughtful integration, ILP innovation will inevitably be more successful.
Advances in information technology present opportunities for police to use technology to shape reform and advance police effectiveness (Ratcliffe & Guidetti, 2008; Rosenbaum, 2007). Unfortunately, the research evidence suggests that the adoption of information technology by police has failed to positively shape reform. Maguire and King (2003) argue that police organisations have adapted technology to conform to traditional structures and processes rather than using technology as a catalyst for reform. New information technology has produced little positive change to police practice or effectiveness (Maguire & King, 2003). Weisburd et al. (2003) argue that CompStat (which relies extensively on information technology) acts to preserve and reinforce existing police organisational arrangements and responses to crime. Chan, Brereton, Legosz and Doran (2001) concluded that the Queensland Police Service’s adoption of new computer technology saw the computerisation of existing practice rather than an intelligent reform of old systems. There is some evidence that successful adoption of new information technology has enhanced police reform. Moore et al. (1999) concluded that quality information management and the embedding of information technology into day-to-day police administrative systems were associated with low levels of change resistance. However, overall, the evidence suggests that using information technology to lead innovation is highly problematic for police organisations and that police organisations struggle to use information technology to support innovative change (Ayling & Grobasky, 2006; Chan, Brereton, Legosz, & Doran, 2001; Duncan, Moul, & Nilakant, 2001; Hughes & Jackson, 2004; Maguire & King, 2003; Small, 2000; Weisburd et al., 2003).

Given the symbiotic dependence of ILP on the successful management of information technology, information technology will be very important to
successful ILP uptake. Poor use of information technology tools will deliver weak intelligence products and undermine ILP uptake. Successful adoption of ILP turns on the delivery of effective, credible intelligence products. Failure to successfully integrate and manage information technology will demonstrate the ineffectiveness of ILP and likely foster resistance to ILP among officers. How well information is managed and how well technological innovations are integrated into NZP areas will be critically important in determining the success of local innovation uptake.

3.2.6 Leadership

Leadership research has been a focus of the management and organisational literature for more than 50 years (Ott, 1989). However, until recent decades the influence of police leadership was a neglected aspect of the policing research agenda (Dobby, Anscombe, & Tuffin, 2004; National Research Council, 2004). More recently, research has emerged indicating that police leadership may have an important role in shaping the behaviour of police organisations and individual officers (Ford, 2002; Long, 2003; National Research Council, 2004). While the empirical evidence focusing on police leadership is still developing, a growing body of evidence is underpinning the importance of police leadership for effective and lawful policing (Becker et al., 1996; Dejong, Mastrofski, & Parks, 2001; Skolnick & Fyfe, 1993; Worden, 2003). For example, Skolnick and Fyfe (1993) demonstrate that unlawful conduct by officers can be reduced in the face of unequivocal leadership from managers about the kinds of behaviours that will not be tolerated. The role of front-line police leaders is also very important in shaping the behaviour of officers. Officers pay close attention to their immediate supervisors and officer
behaviour is shaped by perceptions of supervisor priorities and a desire for recognition from supervisors (Becker et al., 1996; Dejong, Mastrofski, & Parks, 2001; Worden, 2003).

An important gap in the police leadership literature is the role of police leaders in explicating the development of police innovation. The evidence from the wider innovation literature regarding the importance of leaders in promoting and championing innovation is compelling. More cosmopolitan, better educated and broader networked leaders are associated with more innovative organisations (Rogers, 2003). Visionary charismatic leaders are frequently found leading innovative organisations (Slappendel, 1996). There is evidence that police leaders with these qualities are more likely to innovate (Etter, 1995; Moore et al., 1999; Skogan & Hartnett, 2005; Weisburd & Lum, 2005; Weiss, 1997). However, overall, the research literature on the role of police leadership in fostering innovation is limited; in particular, strong empirical is lacking (Ford, 2002; Long, 2003; National Research Council, 2004).

To understand the role of police leadership in fostering innovation, lessons from the wider management and leadership literature can be applied. An important approach from the leadership literature considers the role of transactional and transformational leadership (Bass & Avolio, 1994). Research suggests transformational leaders, who can inspire change and motivate staff, will contribute to fostering innovation more than transactional leaders, who rely on authority and manage by exception (Tichy & Ulrich, 1989). Transformational leaders are also more likely to rely on a participatory management style, where officers are given the opportunity to contribute to decision making and have their voice heard by management (Eck & Spelman, 1987; Ford, 2002; Wycoff &
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Skogan, 1994). The move away from a reliance on formal bureaucracy to a more participative management style is a key reform identified as necessary to support initiatives such as COP and POP (Eck & Spelman, 1987; Goldstein, 1990). This proposed shift echoes the tension in the literature between structural approaches to management and more humanistic approaches. Changes to a more participatory management style have been associated with successful reform (Eck & Spelman, 1987; Metclafe, 2001; Moore et al., 1999).

Evidence from the broader organisational literature demonstrates that transformational leadership is associated with higher levels of group cohesiveness, commitment and performance (Pillai & Williams, 2004); improved team communication and cohesion (Dionne, Yammarino, Atwater, & Spangler, 2004) and shared vision and organisational commitment (Dvir, Kass, & Shamir, 2004). Dobby et al. (2004) concluded that where transformational leadership was found in police organisations it was associated with more positive attitudes to work and higher levels of job satisfaction and organisational commitment. More recent studies indicate that innovative reform is likely to be more successful when police leaders encourage officer participation in the reform process (Toch, 2008; Wood, Fleming, & Marks, 2008).

My research draws on the widely used approach to understanding leadership behaviour in the organisational environment that Bass and Avolio (1994, 1997) developed. Transactional leadership emphasises the exchange or agreement between leaders and followers (Bass & Avolio, 1994). Transformational leaders focus on results, and leaders aim to be role models and endeavour to motivate and inspire staff. Transformational leaders encourage creativity and tailor their efforts so as to coach or mentor followers
(Bass & Avolio, 1994). Bass and Avolio (1994, 1997) demonstrate a continuum of leadership behaviours. At one extreme is laissez-faire leadership where leadership behaviour is inactive, in the middle is modest transactional leadership, and at the other extreme are very high levels of transformational leadership. Using this leadership continuum, Bass and Avolio (1994) map transitions between transactional and transformational leadership, with effective managers increasingly relying more on transformational leadership. This continuum has demonstrated its usefulness in describing how innovative change was achieved in several organisations (Antonakis, Avolio, & Sivasubramaniam, 2003; Bass & Avolio, 1994; Hoyt & Blascovich, 2003).

My study aims to fill gaps in the policing literature concerning the role of police leadership in securing the uptake of innovation in policing. A wide range of research evidence demonstrates that leadership from both front-line supervisors and higher level managers is critical to initiating and sustaining the uptake of ILP innovation. Evidence also reveals how leaders address resistance to change in policing. The importance of different leadership styles, particularly the role of transactional and transformational leadership, will become evident. A main focus in innovation research concerns the role of leaders in initiating and sustaining innovation (Slappendel, 1996). My research project considers leadership as a major explanation for innovation as well as one of many discrete organisational factors (Slappendel, 1996).

### 3.2.7 Organisational culture and interconnectedness

The police culture is a feature of the police organisational landscape that purports to significantly influence police behaviour (Bowling & Foster, 2002; Foster, 2003; Reiner, 2000). The police culture is a social psychological
concept arising from the process of officers adapting to a work environment that is “characterised by uncertainty, danger and coercive authority” (National Research Council, 2004, p. 131). Key features of the culture include isolation from outsiders, suspiciousness and extreme loyalty among officers (Bowling & Foster, 2002; Chan, 1997; Paoline, 2003; Reuss-Ianni, 1983). While police culture is an established and popular explanation for police behaviour (Cochran & Bromley, 2003; Foster, 2003; Reiner, 2000; Rosenbaum, Yeh, & Wilkinson, 1994; Skolnick, 2008; Van Maanen, 1975) “there is no rigorous evidence that measures the influence of the police culture on actual police practice” (National Research Council, 2004, p. 130).

Police culture reflects the environment in which police operate, the kinds of people recruited into policing, organisational dynamics and many of the operational difficulties police face (Cochran & Bromley, 2003; Reiner, 2000; Rosenbaum, Yeh, & Wilkinson, 1994; Skolnick, 2008). The culture develops during the socialisation of recruits. Van Maanen (1975, p. 222) described how new recruits quickly adapt to a “stay low and avoid trouble” culture. Paoline (2003) reviewed police organisational culture examining police behaviours as outcomes of the culture. The principal behavioural outcomes Paoline (2003) identified were social isolation and group loyalty. Paoline (2003) suggests that the administrative apparatus of the organisation and the working environment created a sense of unpredictability and uncertainty for police officers. In effect, Paoline (2003) argues that the police organisational culture comes from a sense of learned helplessness that officers experience when they believe themselves to be subject to unpredictable punishment from the environment and their own administration.
More recently, police culture has been used to explain difficulties in the emergence of ILP in the United Kingdom. Cope (2004) identified tensions between sworn officers and non-sworn analysts at the heart of difficulties with innovation uptake. Cope (2004, p. 200) noted frequent misunderstanding of the role of analysis, highlighting the, “chasm between the theory and practice of intelligence-led policing and the current role of analysis”. Weaknesses included poor understanding of analysis amongst police officers and a lack of understanding of policing amongst analysts. Poor intelligence products were produced due to poor quality information being supplied to intelligence sections. These difficulties fuelled misunderstandings which undermined the integration of intelligence into day-to-day policing. Cope (2004, p. 196) went so far as to suggest a “clash of cultures” between the more traditional police culture and the civilian analyst culture.

The National Research Council (2004, p. 131) suggests that to “the extent that it exists and holds sway” the police culture may be an “impediment to organisational change”. The police culture, traditionally characterised as involving large numbers of highly suspicious and defensive officers, is likely to be a constraint on organisational change. However, fieldwork studies suggest wide variance in both police culture and the impact of culture on officer behaviour. Officer behaviour often fails to conform to the norms of classic police culture and other factors, particularly situational factors, bear more strongly on actual behaviour (National Research Council, 2004). Officer behaviour often avoids easy categorisation and there is considerable variance in police culture and evidence of varieties of police subcultures (National Research Council, 2004; Skolnick, 2008; Wood, Fleming, & Marks, 2008).
Evidence supporting variability in police culture is both established and emerging. Reuss-Ianni (1983) described differences between the cultures of police managers and street officers. More recently, changes in demographics and education may be encouraging cultural changes within police with attitudes diverging and more distinct local policing subcultures emerging (Skolnick, 2008). Researchers suggest that the influence of social diversity, increasing numbers of female officers, and changes in the racial configuration and education of officers are all factors affecting the character of contemporary police culture (National Research Council, 2004; Skolnick, 2008).

One dimension of police culture is the strength of social connections between officers. Rogers (2003) describes this “interconnectedness” as important for innovation and closely intertwined with culture. Interconnectedness describes the degree to which the units in a social system are linked by interpersonal networks (Rogers, 2003). Interconnectedness has been positively linked to organisational innovativeness (Linton, 2003; Rogers, 2003). How this variable functions in the context of police organisations is uncertain. Strong and numerous social interconnections within local police agencies may support innovation but equally could account for strong resistance to change. Interconnectedness could be multi-functional, acting to both inhibit innovation in the early stages and support innovation once some critical juncture is reached. My study explores the impact of interconnectedness and police culture on innovation uptake.

Increasingly, the explanatory power of the traditionally conceived police culture is coming under scrutiny. Police culture may be a useful concept in explaining the uptake of ILP or the emergence of resistance to change.
However, the empirical evidence for police culture is weak and, increasingly, evidence of diversity in police culture and the presence of subcultures are coming to the fore. A traditional view holds that the police culture will prompt officers to be suspicious and oppose or resist ILP innovation. However, variability in police culture or the presence of subcultures may also influence the uptake of innovation in novel ways. My study explores how the police culture impacts on ILP uptake and how the culture interacts with ILP innovation. Any contrasts that emerge between strong and weak innovation uptake sites may provide useful insights into both the impact of the police culture on innovation and the utility of police culture or police subcultures as an explanatory concept in police research.

### 3.2.8 Change management

Change management describes the deliberate strategies and actions managers undertake with the intention of introducing innovation or other change into the organisation (Demeanor, 1991; Dunphy, 1996; Ford, 2002; Kimberly & Evanisko, 1981; Kotter, 1995; Schneider, 2003; Senge, 1990; Senior, 1999; Thomas, 2001; Webb & Cleary, 1994; Young, Charns, & Shortell, 2001). A wide range of literature identifies important areas that managers should consider when planning for change. Leavitt (1989) recommends considering the interaction of task, structure, technology and actors. Lewin (1989) suggests assessing the forces constraining and driving change. The change management literature reflects the tension between structural, top down or imposed change and the need for more humanistic people-centred change (Argyris, 1989). The issue of finding ways to include workers and work from the bottom up for effective change management is seen in recent police research.
Toch (2008) and Wood, Fleming and Marks (2008) provide examples of successful change that included officers in the change process.

The extent to which thoughtful and deliberate organisational strategies are used to facilitate innovation and reform is a significant influence on the success of innovation (Linton, 2002). Well-executed change management has underpinned successful police reform (Eck & Spelman, 1987; Ford, 2002; Moore et al., 1999; Skogan, 1997). A significant array of change management advice is available. A typical example of advice comes from Ford (2002) who adopts the work of Kotter (1995) to set out an ideal type of change management for police organisations. Ford (2002) describes factors for effective change management, including creating a sense of urgency, creating a powerful guiding change team, implementing change, monitoring performance and institutionalising changes. Moore et al. (1999) highlight a range of strategies innovative police organisations have used, including creating organisational heroes and using demonstration projects to introduce new ideas. There is a vast array of possible change management approaches (Blum & Naylor, 1968; Hummel, 1994; Smith, 1996; Thomas, 2001; Van Maanen, 1998; Webb & Cleary, 1994). The key factor may be adopting and successfully executing a strategy.

The voluminous change management literature makes plain that effective change management will strongly support the uptake of ILP innovation in New Zealand. Effective change management will see managers use deliberate strategies to stage the implementation of ILP and develop a broad base of support for ILP. Features of effective change management should include planning for change and efforts to engage front-line officers in the change process.
process. How police manage change is likely to be an important overarching variable that will interact with a range of other variables. It is likely that where there is no planning or consideration of the broad issues necessary to introduce innovation successfully, ILP innovation will struggle.

3.2.9 Loose coupling

Loose coupling describes the misalignment between high-level goals and the day-to-day behaviour of officers (Crank & Langworthy, 1996; Lipsky, 1980; Maguire & King, 2004). The extent to which high-level organisational goals are disconnected from planning, processes, administrative functioning and officer behaviour can be an important source of resistance to change (Lipsky, 1980). Loose coupling has underpinned the difficulties police organisations have experienced when endeavouring to implement strategic reform (Goldstein, 2003). Police can use loose coupling as a defensive mechanism. Changing goals can be used to ward off a legitimacy crisis, permitting the appearance of change while little actual change in police practice occurs at the front line (Weisburd et al., 2003).

A good example of police loose coupling comes from the POP literature. Goldstein (2003) notes that while many police agencies claim to use POP only a handful of agencies have consistently applied a beat-level problem-solving approach, and even these efforts fall considerably short of the systematic high-level analysis of problems originally proposed for POP (Goldstein, 1990, 2003). POP innovations are fragile, frequently relying on the efforts of enthusiastic individuals or innovative police leaders, rather than becoming embedded into mainstream policing (Goldstein, 2003).
Of particular concern is the extent to which officers perceive loose coupling. If officers think stated organisational goals are unrelated to their own behaviours, they are likely to resist change (Falcone, Wells, & Weisheit, 2002; Mastrofski, Ritti & Hoffmaster, 1987). Innovative police organisations will inevitably have to reduce loose coupling within their organisations. Smaller police agencies have advantages in aligning organisational goals and officer behaviour (Mastrofski, Ritti, & Hoffmaster, 1987). Alpert and MacDonald (2001) examined a range of organisational processes police agencies used to influence the use of force by officers. They suggest that organisations that provide an extra layer of accountability by requiring supervisors to fill out use of force reports, rather than officers completing their own reports, can reduce the use of force by officers. This kind of administrative arrangement couples an organisational goal (reduce the unnecessary use of force by officers) with expectations of officer behaviour, by clearly signalling to officers that the goal needs to be taken seriously. In this case, officers have to explain in detail the use of force to their supervisor.

ILP innovation prescribes clear goals. Police organisations implementing ILP should commit to crime reduction and prevention. Strategies and tactics used to achieve these goals should be drawn from an evidential base (Ratcliffe, 2003). If officers detect ambivalence about goals or a lack of clear alignment between goals and behavioural expectations, innovation will be undermined. A disconnection between publicly stated goals and a communicated expectation of officer behaviour is highly problematic for innovation uptake. It is probable that officers at strong ILP innovation uptake sites will report a clear alignment between goals and behavioural expectations.
3.2.10 Management commitment to innovation

A commonsense view holds that police officers are motivated to avoid punishment or to please managers, so will support an innovation based on their understanding of management commitment to reform. Research findings suggest that management support for innovation acting independently or in concert with other factors supports the uptake of innovation (Ford, Weissbein, & Plamondon, 2003; Rosenbaum et al., 1994). Ford, Weissbein and Plamondon (2003) found that strong management commitment to an innovation, coupled with other supportive factors, was effective in securing the support of officers for innovative reform. Rosenbaum et al. (1994) concluded that uptake of problem solving by police officers was clearly influenced by management support for problem-solving initiatives.

My research evaluates the influence of management commitment to innovation as a factor shaping the uptake of ILP innovation in New Zealand. One mechanism allowing leaders to encourage officer support for innovation may be the clear communication of management support for ILP. Management support may encourage innovation independently or in combination with other factors. The general innovation literature points to the critical influence of leaders and managers in shaping innovation uptake (Rogers, 2003). Assessing the direct influence of officer views of management support will help understand the innovation life cycle in New Zealand.

3.2.11 Innovativeness

The final organisational level factor examined as part of my research is a general measure of local organisational innovativeness. Innovativeness is defined as the degree to which a social unit adopts innovations before other
social units in the same social system (Rogers, 2003). Innovativeness is linked to organisational qualities like comfort with risk taking, tolerance for creativity, receptivity to change and encouragement of new practices (Brody, DeMarco, & Lovrich, 2002). Innovativeness is often attributed to the qualities of key managers or leaders within an organisation. For example, better educated managers are often linked to higher levels of innovation (Rogers, 2003). Organisations with more slack resources may be able to trial or experiment with innovations more frequently and so adopt innovations more often (Rogers, 2003).

Research exploring police innovativeness has linked the uptake of innovation to a variety of factors, including environmental factors such as the political environment (Morabito, 2008) or environmental instability (Zhao, 1996) and networks, organisational capacity and the influence of key individuals (Skogan & Hartnett, 2005). The research directly evaluating the innovativeness of police organisations suggests that higher levels of general innovativeness are associated with stronger uptake of innovation reform (Brody, DeMarco, & Lovrich, 2002). My research assesses officer perceptions of local organisational innovativeness.

3.3 Environmental factors

As the study of organisations emerged during the early 20th century, researchers focused on the internal dynamics of organisations, trying to understand how internal factors influenced the behaviour of workers and organisations (Ott, 1989). As the discipline matured, this internal focus was supplemented by a more dynamic open system approach, which considered the behaviour of organisations in the context of the wider environment (Maguire,
As Maguire (2003, p. 26) notes, organisational environments are “immense in scope”, and can include everything from the influence of the media, politicians and unions to the impact of economic and social factors. A broad range of factors, including community size (Maguire, 1997; Maguire, Shin, Zhao, & Hassell, 2003; Wells, Falcone, & Rabe-Hemp, 2003), ethnic influences (Crank, 1990), environmental complexity (Maguire, 2003) and environmental stability (Maguire, 2003; Wells, Falcone, & Rabe-Hemp, 2003), can affect the way police organise and behave. Rogers (2003) notes the diverse and sometimes contradictory impact of environmental factors on innovation uptake, with factors sometimes having different effects depending on the stage of the innovation process. For example, organisational size appears to support the initial uptake of innovations, but then acts against the internal diffusion of innovation (Rogers, 2003). Therefore, large organisations may experiment more with innovations but adopt few on a large scale compared with smaller organisations.

Several challenges emerge from the research literature. The interaction between organisational, environmental and individual factors is complex and makes developing parsimonious explanations of innovation phenomena tricky (Maguire, 2003; Rogers, 2003; Slappendel, 1996). The breadth of factors and the complex array of potential interactions have led researchers to explore the use of typologies to allow clear explanations to emerge (Maguire, 2003). However, as the National Research Council (2004, p. 156) notes, “the environment in which the police operate is challenging to parse into meaningful categories”. To address this difficulty, the National Research Council (2004) used the concept of concentric circles to organise its research. This approach places the police organisation at the centre of concentric circles and considers
the influence of factors moving out from the organisation, moving from local to regional to national factors, or moving from small scale to large scale factors. This research project adopts the same approach. First, local relationships with key players are considered as potential factors influencing police innovation uptake. Then broader environmental factors are explored, initially neighbourhood effects and then wider environmental factors.

Maguire (2003, p. 29) identifies a primary debate in organisational research that is concerned with whether objective environmental factors influence organisations directly or whether it is the organisational members’ perceptions of the environmental factors that most strongly influence the organisation. This mediation by individual perception is a social psychology approach also adopted by Weick (1995), who considers how individuals make sense of their organisation and wider environment. As Maguire (2003) observes both approaches are likely to be important with some environmental factors likely to affect the organisation whether they are readily perceived or not. A steady deterioration in economic conditions over time falls into this category. One way to ensure that both direct and mediated effects of environmental factors are explored is to investigate innovation as a dynamic and interactive process (Slappendel, 1996). Rather than just static or straightforward, to consider how the life cycle of an innovation interactions with individual actors and the environment (Rogers, 2003). To examine how an innovation proceeds from awareness through stages to institutionalisation or rejection (see Rogers, 2003, p. 170). In this way the impact of and interaction with different factors and pathways can be considered at different stages of the life cycle.
3.3.1 Relationships

Maintaining key relationships is vital for police organisations. Nothing is more likely to precipitate a crisis and threaten the legitimacy of police than a relationship breakdown with a core constituency (Klinger, 2004; Maguire, 2003; Reiss & Bordua, 1967). Ensuring that key relationships are maintained during periods of innovative change is particularly important. Failure to maintain key relationships can quickly undermine innovation. A typical example is explored by Goldstein (2003), who argues that conflicting demands, unrealistic public expectations and extensive police discretion underpin difficulties associated with the adoption of POP reform. The demands of serving a range of constituencies are evident in factors such as conflicting public demands and unrealistic public expectations. Relationships affect police behaviour sometimes individually and sometimes collectively. Key relationships identified as important for police and associated with possible challenges to innovation include relationships with the news media (Chan & Mauborgne, 2003), political actors (Crank & Langworthy, 1996; Hassell & Zhao, 2003; Hassell, Zhao, & Maguire, 2003; Mastrofski, Ritti, & Hoffmaster, 1987; Saltzstein, 1989; Wilson, 1968), police unions (Berry, O’Connor, Punch, & Wilson, 2008; Finnane, 1999a, 2008; Goldstein, 2003; Kadlec, 2003; Marks, 2007) and the community (Crank & Langworthy, 1992; Falcone, Wells, & Weisheit, 2002; Moore et al., 1999). These relationships represent the core of the complex web of constituencies that police must serve in order to maintain legitimacy (Crank & Langworthy, 1992; Scott, 2003).

While it is clear from the research that relationships influence police behaviour, no simple rules emerge and predictions about how these factors affect innovation uptake need to be grounded in local circumstances (Crank,
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1990; Klinger, 2004). Often relationships act to influence police behaviour. For example, community concerns may be reported by the news media which in turn mobilises politicians. These groups both individually and acting in concert can bring pressure to bear on police. Ankony and Kelley (1999) found news media reports of negative court outcomes for police led to police feeling alienated from their communities, which in turn made police less likely to engage in proactive policing behaviours. While all relationships are potentially important in influencing the success of innovation, the most important for smaller police agencies based in provincial areas are relationships with the community (Falcone, Wells, & Weisheit, 2002). Community relationships are the key constituency police need to retain credibility with (Crank & Langworthy, 1992; Moore et al., 1999).

Different relationship patterns may explain different patterns of innovation and resistance to change. Secure positive relationships may create a safe environment in which innovation can occur. Strained relationships may make police agencies risk averse and unlikely to support innovation. Strained relations may also cause or be symptomatic of a crisis. Crank and Langworthy (1992) and Moore et al. (1999) note that a crisis can create a significant impetus or rationale for change. Financial or political problems, a breakdown in community confidence in police or concerns about crime control may cause a crisis in relationships for police (Moore et al., 1999; Crank & Langworthy, 1992).

3.3.2 Demand for service

The most direct way that the environment impacts on police is through the demand for police services. Actual or perceived demand for policing services is likely to strongly influence innovation uptake. The demand for police services is
often related to community size. Police servicing large communities frequently perceive that they are overworked (Wells, Falcone, & Rabe-Hemp, 2003). Community size also predicts how police agencies are structured and operated. Larger communities tend to have larger, more complex, more formalised and less concentrated police agencies than smaller communities (Maguire, 2003; Wells, Falcone, & Rabe-Hemp, 2003). Demand for police services from urban ethnic minorities groups can influence police, with different patterns of demand seen in urban and rural policing environments (Crank, 1990).

The demand for police services from the environment and the perception of that demand by officers may differ. Officers who perceive they are overwhelmed by demand from the environment may welcome innovation as providing some support or relief. Alternatively, these same officers may resist change and oppose innovation. Rogers (2003) describes this kind of resistance as the innovation–needs paradox, where individuals or organisations with the greatest need for innovative reform are often the most resistant to such reform. The perception of an excessive workload is likely to be a factor influencing the adoption of innovation (irrespective of whether the workload is actually excessive). As occurs across the public sector generally, police are sometimes over-stretched, overloaded, or given ambiguous assignments and left to develop shortcuts, routines and simplifications to get the job done (Lipsky, 1980; Sparrow, 2000; Wells, Falcone, & Rabe-Hemp, 2003). They also share with other public sector agencies role ambiguity and wide discretion and autonomy within their organisation (Hill, 2003; Lipsky, 1980).

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8 However, Wells, Falcone, and Rabe-Hemp’s (2003) simple operationalisation of COP may have influenced this finding.
3.3.3 Environmental complexity and environmental stability

Over the past 40 years calls for police reform have focused on the need to simplify and reduce bureaucratic, layered and complex police organisational structures (Goyot, 1979; Maguire, 1997; Moore & Stephens, 1991; Skogan & Hartnett, 1997; Skolnick & Bayley, 1988). These changes have been seen as important to support COP and POP reform in particular and to allow police to respond more flexibly to community problems (Goldstein, 1990; Skogan & Hartnett, 1997). The response to calls for reform in police structures has been disappointing (Bayley, 1989; Goldstein, 1990; Kelling & Moore, 1988).

Evidence from the organisational and police literatures suggests that police organisational structures are a response to complex and unstable environments. Environmental complexity includes a broad range of environmental factors shown to impact on police, including population heterogeneity or diversity, economic inequality, urbanisation, social disorder and racial make up (Maguire, 2003). Environmental complexity is concerned with levels of homogeneity or differentiation in these key environmental variables (Baldrige & Burnham, 1975; Damanpour, 1991; Maguire, 2003; Walker, 2007). Environmental stability describes the level of stability in resources, population, political arrangements, racial configurations and community relations (Maguire, 2003). Complexity in the environment may encourage police to shut down boundaries and create greater structural complexity both vertically and functionally, and greater physical and administrative centralisation (Maguire, 2003; Meyer & Goes, 1988; Walker, 2007). These responses aim to buffer and limit the effects of complexity on the organisation. In a similar way, instability in the environment can promote defensive behaviours from police organisations in an effort to limit the effects of
instability on the organisation (Maguire, 2003; Reiss & Bordua, 1967). As Maguire (2003, p. 102) notes, “if unchecked, unstable environments produce unstable organizations”. Police respond to unstable environments by exerting control through developing more complex functions, segmenting workloads and centralising the organisation spatially and administratively (Maguire, 2003).

The idea that police respond to complex and unstable environments defensively is highly plausible, but as with much in the innovation and organisational literature, must be regarded with caution as the empirical evidence is mixed. Maguire (2003) found support for the influence of environmental instability on only some structural features of police organisations. Maguire (2003) saw no effect of environmental complexity. Other non-police studies support a relationship between environmental complexity and more complex structural features (Meyer & Goes, 1988; Walker, 2007). Lessons from the literature suggest that caution must be exercised in trying to discern how police organisations respond to significant environmental features. Context is highly relevant and other factors such as the behaviour of leaders and organisational factors are likely to be more influential (Damanpour & Schneider, 2006). Unpredictable interaction effects are also likely to come into play (Slappendel, 1996).

A broad theme in the literature demonstrates that police officers and police organisations behave defensively when facing both environmental challenges and innovation. Complex and unstable environments seem to promote defensive organisational structures (Maguire, 2003). Officers are also typically characterised as being conservative and resistant to change (Allen, 2002; Etter, 1995; Moore, Thacher, Hartman, Coles, & Sheingold, 1999; Schneider, 2003).
The literature is not clear about the relationship between officer attitudes and environmental factors, so more research is required. A plausible hypothesis suggests that if officers perceive the environment to be unstable and complex they are unlikely to support ILP uptake. Therefore, it is probable that officers at weak uptake sites will hold more pessimistic views about environmental complexity and stability than officers at strong uptake sites.

3.3.4 Neighbourhood factors

While the influence of broad environmental factors on police behaviour is unsettled, evidence for the influence of more immediate factors such as local communities and spatial contexts is much stronger (Klinger, 2004). For example, idiosyncratic neighbourhood factors influence police behaviour; in particular, officers appear to modify detection activities depending on neighbourhood stability and racial heterogeneity (Kania & Mackey, 1977; Klinger, 2004; Riksheim & Chermak, 1993; Smith, 1986; Worden, 1989).

Smith (1986) examined the neighbourhood context of police behaviour, exploring the relationship between police behaviour and neighbourhood characteristics. The racial composition of neighbourhoods influenced officer behaviour with threshold effects operating. In some neighbourhoods a crime must reach a higher threshold to be reported, notably a higher threshold is required in high crime neighbourhoods or in some neighbourhoods with distinct racial characteristics. Smith (1986) suggests that neighbourhood characteristics, police department structure and supervisory structure may interact to produce systematic and predictable patterns of police behaviour. Resig et al. (2004) argue that neighbourhood characteristics may better explain police behaviour than the racial characteristics of suspects. Klinger (1997,
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2004) suggests that community characteristics such as perceived levels of crime and deviance can shape officer attitudes. Officers categorise crime differently in areas perceived as high crime, demanding, for example, more-deserving victims before they are prepared to take action.

This unevenness in officer behaviour depending on neighbourhood context may have important consequences for the uptake of ILP. Operational ILP sees Intelligence Units directing officer activities into crime hot spots and recommends tactics and tasks to perform in those locations (Ratcliffe, 2008). Operational ILP also recommends how officers should deal with prolific offenders (Ratcliffe, 2008). If the directions and recommendations of the Intelligence Unit conflict with officer behavioural norms relating to particular neighbourhoods or spatial contexts this may seriously undermine ILP uptake. Conflict and tensions may emerge between intelligence recommendations and usual police conduct in discrete locations. This may destabilise confidence in ILP and facilitate officer resistance to change. Neighbourhood effects may be a hidden barrier to the uptake of ILP innovation.

3.4 Individual factors

Beginning with Reiss and Bordua (1967) and Wilson (1968), a body of research has explored the relationship between police behaviour and organisational, environmental and individual variables (Klinger, 2004; Maguire, 2003; Mastrofski, Worden, & Snipes, 1995; Riksheim & Chermak, 1993; Worden, 1989). Research has examined the relationship between individual characteristics, typically gender, race, age, marital status, education, rank and length of service, and police behaviours such as service, arrest, detection and use of force (Riksheim & Chermak, 1993). In general, individual characteristics
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have proved to be poor predictors of police behaviour. When researchers explore simple relationships they have not found the expected relationships, such as between lower levels of education and greater use of force (Riksheim & Chermak, 1993; Robinson, 2002). This is particularly true when behaviours are less discretionary\(^9\) and likely to be subject to rules and sanctions (Riksheim & Chermak, 1993; Robinson, 2002). Smith (2004) for example, found no relationship between diversity in police departments\(^{10}\) and rates of police use of deadly force.

Research at the individual level has sought to link police behaviour with officer attitudes (Lurigo & Skogan, 1994; Schafer, 2002), beliefs (Crank, Payn, & Jackson, 1993), job satisfaction (Greene, 1989) and organisational commitment (Becker, Billings, Eveleth, & Gilbert, 1996). Again, proposed relationships between attitudes and police behaviours generally fail to materialise in the research. The individual attitudes of officers have little or no influence on behaviours such as arrest, use of force or enforcement-related behaviours (Riksheim & Chermak, 1993; Robinson, 2002). A typical example comes from Mastrofski, Ritti and Snipes (1994) who concluded that personal feelings about the seriousness of drink driving were unrelated to enforcement of drink driving laws.

However, relationships have emerged between attitudes and the individual characteristics of officers. Lurigio and Skogan (1994) found more positive attitudes to community policing were held by ethnic minority officers, older officers and higher ranking officers. In another study, officers with community

\(^9\) Such as arrest and use of force behaviours compared with service and detection behaviours (Riksheim and Chermak, 1993).

\(^{10}\) Representation of ethnic minorities and females (Smith, 2004).
policing experience, female officers, supervisors and officers with promotional aspirations were more positive about community policing (Schafer, 2002). A further study found non-white officers more supportive of community policing than white officers (Novak, Alarid, & Lucas, 2003).

The influence of officer characteristics and attitudes on actual behaviour is strongly moderated by the influence of rules, sanctions and norms. This is particularly true when officer behaviour is discretionary. Discretionary behaviours can be influenced by officer attitudes, but less-discretionary officer behaviours are guided much more by rules, sanctions and norms (Becker et al., 1996; Engel & Worden, 2003; Klinger, 1997; Robinson, 2002; Worden, 1989). For example, officers may be able to exercise discretion when deciding whether to arrest for a low-level offence. However, when faced with a decision about making an arrest for a serious offence, the influence of rules, norms and sanctions are likely to guide officer behaviour (Robinson, 2002). This finding has been consistent across a range of research, including surveys and observational studies. More discretionary behaviours such as detection and service activities seem to allow for the influence of attitudes (Riksheim & Chermak, 1993; Robinson, 2002). Robinson (2002, p. 1158) concludes:

a relationship between attitudes and behaviour might also be more important when the focus shifts from traditional law enforcement activities to nontraditional or community policing, perhaps because officers have even more discretion over which tasks and activities they choose to perform …. personal belief systems might be more influential over [police] behaviour when they are engaging in types of police work that are less likely to be explicitly defined by departmental policies … although police attitudes are irrelevant during specific police–citizen encounters, they may profoundly affect the success of large scale initiatives.

A strong body of evidence demonstrates the importance and impact of situational variables on police behaviour. Situational variables consistently
influence police behaviour. The most reliable findings demonstrate that immediate situational variables, such as suspect demeanour and complainant’s preferences, operate as key determinants of arrest and use of force behaviours (Kania & Mackey, 1972; Reisig, McCluskey, Mastrofski, & Terrrill, 2004; Riksheim & Chermak, 1993; Smith & Visher, 1981; Smith, Visher, & Davidson, 1984; Worden & Shepard, 1996). In short, when suspects are disrespectful of or hostile towards the police, they are more likely to be arrested or subject to force (Reisig, et al., 2004; Worden & Shepard, 1996). The literature demonstrates that situational variables strongly influence police behaviour.

3.4.1 Knowledge of innovation

Many of the difficulties associated with innovation uptake can be attributed to ignorance or uncertainty about a proposed innovation. The police literature identifies a lack of understanding about reforms, knowledge gaps and confusion about how to operationalise change as key factors driving resistance to change or ineffective innovation uptake (Goldstein, 2003; Ratcliffe, 2004, 2005, 2008; Tilley, 2003b; Townsley, Johnson, & Pease, 2003). Weak innovation knowledge can generate difficulties with external relationships if confusion exists between key partners and police concerning an innovation (Scott, 2003). More recently, the advent of innovations such as POP and ILP that rely on information technology has demonstrated the importance of specific innovation knowledge for successful innovation uptake. Poor innovation knowledge leaves officers, analysts and managers confused and struggling to operationalise innovations and to integrate innovation with their existing duties (Ratcliffe, 2004, 2005, 2008; Tilley, 2003b; Townsley, Johnson, & Pease, 2003).
At the individual level, successful innovation is associated with quality formal and informal training about innovative change (Riksheim & Chermak, 1993; Skogan & Hartnett, 1997). Rosenbaum, Yeh, and Wilkinson (1994) used a pre-test–post-test survey design to investigate the effects of training programmes on officer performance of COP behaviours. They noted training had positive effects on officer knowledge of COP and officer performance of COP behaviours such as foot patrols and informal contacts with the public (Rosenbaum, Yeh, & Wilkinson, 1994). There is also evidence that participation in initiatives shapes positive attitudes towards those initiatives and improves job satisfaction (Hayeslip & Cordner, 1987). Innovation-related behaviour can shape officer attitudes, reinforce training and avoid cognitive dissonance among officers (Hayeslip & Cordner, 1987; Weiten, 1989).

While individual office knowledge about innovation is critical to innovation uptake a wider array of knowledge-related issues are evident in the literature. Problems have been seen in efforts to implement knowledge-centric innovations such as POP and ILP in the US and the UK (Tilley, 2003b). Townsley et al. and Scott (2003) highlighted a range of difficulties officers faced in operationalising POP that were aggravated by weak innovation knowledge. Difficulties included tension between critical thinking and reactive decision making, a lack of imaginative responses, an unwillingness to involve partner agencies and poor quality analysis leading to underestimating or overstating knowledge about particular problems. Tilley (2003b) notes difficulties with finding and retaining enough skilled analysts and training staff are experienced under both POP and ILP. Other problems include a lack of data for analysing problems and poor quality analysis. ILP uptake was beset by problems such as maintaining a steady flow of intelligence, a lack of quality analysis, and problems preparing
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target packages and conducting operations (Tilley, 2003). These factors draw attention to the critical importance of training and developing innovation knowledge among all key internal innovation partners (Townsley et al, 2003; Scott, 2003).

A further problem identified was a lack of understanding among analysts about the context of crime and theories of criminality or crime sciences (Cope, 2004). Crime sciences have a firm grounding in environmental criminology and situational crime prevention (Clarke, 1992; Clarke & Eck, 2003). Frequently, intelligence products were not grounded in crime sciences, so opportunities to understand and explain crime problems were missed. Cope (2004, p. 196) describes how analysis can be superficial, noting that when hot-spots were identified the “specific crime generators and opportunities for intervention were rarely included”.

Ratcliffe (2005) identified similar difficulties with efforts to introduce ILP in New Zealand. Ratcliffe (2005) used qualitative interviews with a wide variety of analysts and decision-makers to investigate the development of ILP in New Zealand. He identified problems including a lack of understanding of intelligence and how intelligence processes should work, training problems, poor integration into the decision-making process, a focus on performance reporting rather than the tactical use of intelligence, and confusion about roles. Ratcliffe (2004) also identified a knowledge gap between crime analysts and police managers. He notes that managers often lack critical knowledge about effective crime reduction strategies and tactics, so are unable to play their part in making informed decisions.
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The research evidence demonstrates how critical both officer knowledge and pervasive organisational knowledge are to successful innovation uptake. Deficiencies in innovation knowledge lead to a variety of problems, including resistance to change, general confusion and major problems operationalising innovations. Innovation uptake needs to be supported by all-encompassing training, learning and testing of new innovations. Learning cannot be static and needs to shape officer commitment and behaviour over time. Processes need to be developed and tested. New challenges require new knowledge. A failure to focus on officer knowledge of a new innovation and the broad development and management of innovation knowledge as part of the innovation life cycle is likely to be fatal for innovation uptake.

3.4.2 Commitment to innovation

Studies exploring the factors that influence the conduct of police officers are prominent in the policing literature. Two findings stand out. The research highlights the importance of situational variables in shaping officer behaviour (Kania & Mackey, 1972; Reisig, McCluskey, Mastrofski, & Terrill, 2004; Riksheim & Chermak, 1993; Smith & Visher, 1981; Smith, Visher, & Davidson, 1984; Worden & Shepard, 1996). Research findings also demonstrate that officer attitudes are poor predictors of actual behaviour (Becker, Billings, Eveleth, & Gilbert, 1996; Crank, Payn, & Jackson, 1993; Greene, 1989; Mastrofski, Ritti, & Snipes, 1994; Riksheim & Chermak, 1993; Robinson, 2002; Schafer, 2002). These findings might lead to the conclusion that officer attitudes towards innovation are unimportant in shaping innovation uptake. This is not the case. Police officers operate in a low visibility environment and innovation-related behaviour is often discretionary; these features mean officer
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attitudes are an important influence on the uptake of innovation (Riksheim & Chermak, 1993; Robinson, 2002). Several research studies support this conclusion. Ford, Weissbein and Plamondon (2003) found levels of commitment to COP were directly related to the frequency of community policing behaviours. These included behaviours such as working to solve problems in the community, crime prevention activities and supporting youth programmes. Other researchers have emphasised the importance of new initiatives capturing the hearts and minds of officers, if innovations are to succeed (Allen, 2002; Lurigo & Skogan, 1994; Moore et al., 1999).

The literature suggests several approaches to building officer commitment to innovation. Formal training programmes and engaging in problem-solving practices may lift officer commitment to innovation and performance of innovation-related behaviour (Rosenbaum, Yeh, & Wilkinson, 1994). The more officers gain experience with an innovation, the more likely they are to support innovation (Weissbein, Plamondon, & Ford, 1999) with behaviour leading attitudes so as to avoid cognitive dissonance (Weiten, 1989). Supportive behaviour from leaders and immediate supervisors is critical in building officer commitment (Engel & Worden, 2003; Ford, 2002; Long, 2003; Moore et al., 1999; National Research Council, 2004).

Establishing the commitment of individual officers to ILP is almost certain to be central to establishing ILP in New Zealand police areas. Once commitment is established, a willingness to commit discretionary time and to ILP behaviours are likely to emerge. The more officers are educated about and engage in performing ILP behaviours, the more commitment is likely to build. A failure to establish officer commitment is likely to undermine innovation uptake.
3.4.3 Supervisors

The role of supervisors in influencing the conduct and attitudes of front-line officers has emerged strongly from the research literature in recent years. Supervisors are one of the strongest influences on officer behaviour (Dejong, Mastrofski, & Parks, 2001; Engel & Worden, 2003; National Research Council, 2004). Several factors underpin the influence of supervisors on front-line officers. Front-line supervisors have direct supervision of officers and both interpret the directions of senior managers and negotiate the kinds of day-to-day routines, simplifications and shortcuts officers use (Lipsky, 1980). Front-line supervisors carry rank in a quasi-military organisation and have direct visibility of officer behaviour in an environment characterised by low visibility and high discretion (Becker et al., 1996; Bowling & Foster, 2002; Dejong, Mastrofski, & Parks, 2001; Engel & Worden, 2003; Lipsky, 1980; Reiner, 2000). This environment creates significant opportunities for supervisors to influence behaviour and set norms and standards.

Officers pay close attention to their supervisors. Officer behaviour is shaped by commitment to their supervisor, the desire for recognition from their supervisor and officer perception of supervisor priorities (Becker et al., 1996; Dejong, Mastrofski, & Parks, 2001). Individual officer commitment to a supervisor has been positively correlated with the performance of behaviours endorsed by that supervisor (Becker et al., 1996). Dejong, Mastrofski, and Parks (2001) found that officers who engaged in problem solving were motivated by the desire for recognition of the behaviour by supervisors. Officers expected problem-solving behaviours to be recognised and rewarded. Engel and Worden (2003) demonstrated that officer perception of supervisor priorities directly influenced behaviour. Officer perception of the extent to which their
supervisor prioritised problem solving influenced the amount of time officers spent conducting problem-solving activities; their own attitudes were unrelated to the behaviour (Engel & Worden, 2003). The important factors were officer perception of supervisor attitudes (the supervisor’s actual attitude was irrelevant) and the expectation of reward (Engel & Worden, 2003).

While supervisors are clearly able to influence their subordinates, recent research evidence indicates that police supervisors may not be supporting the uptake of innovations by officers. Famega, Frank and Mazerolle (2005) found that overall front-line police supervisors provided few problem-solving directions to their subordinates; when they provided directions, those directions were often unclear and unlikely to drive the problem-solving approaches being promoted. Overall, the research evidence demonstrates that supervisors have significant opportunities to influence the behaviour of officers. If supervisors choose to, they can be a critical influence on innovation uptake by their subordinates. It seems likely that where supervisors demonstrate support or provide unequivocal direction to officers; officer support for innovation is likely to follow.

3.4.4 Organisational commitment and job satisfaction

Organisational and police researchers have evaluated the relationship between employees’ job satisfaction and commitment and a variety of important organisational outcomes. Scholars have explored the relationships with outcomes such as job performance, productivity, turnover, absenteeism and responses to innovation such as resistance to change and willingness to use discretionary time (Austin & Bannon, 1994; Beck & Wilson, 1995; Herzberg, 1989; McCormick & Ilgen, 1987; Warr, 2002; Zhao, Thurman, & He, 1999).
Job satisfaction describes the affective response that individuals have to their jobs (Herzberg, 1989; McCormick & Ilgen, 1987). It is a global measure, drawing on a range of job dimensions and perceptions of self and others (McCormick & Ilgen, 1987).\(^{11}\) Research findings suggest that weak job satisfaction is associated with negative organisational outcomes. For example, low levels of job satisfaction have been associated with turnover and absenteeism but not with negative job performance (McCormick & Ilgen, 1987). Research suggests that separate factors influence job satisfaction and dissatisfaction. Herzberg (1989, p. 97) suggests that the “factors involved in producing job satisfaction and motivation are separate and distinct from the factors that lead to job dissatisfaction”. Herzberg (1989) argues that job satisfaction factors include meaningfulness, the importance of the work,\(^{12}\) responsibility, the responsibility one has while doing the work\(^{13}\) and knowledge and recognition for the work.\(^{14}\) An absence of these factors can lead to overall weakness in job satisfaction, but not necessarily active job dissatisfaction. Job dissatisfaction is underpinned by factors such as “strict policies, overemphasis on rules, inadequate working conditions, and poor interpersonal relations” (Zhao, Thurman, & He, 1999, p. 158).

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\(^{11}\) The dimensions include work, rewards and the context of work, and the perceptions include those of the self, others inside the organisation and others outside the organisation (McCormick and Ilgen, 1987).

\(^{12}\) Conceptualised as skill variety, activities that challenge skills and abilities; task identity, the extent to which the task requires completion of the whole identifiable piece of work; task significance, how substantially the job affects other people’s lives (Herzberg, 1989).

\(^{13}\) Conceptualised as an employee’s autonomy over how they will perform the work (Herzberg, 1989).

\(^{14}\) Conceptualised as feedback to the employee about how they are performing the work (Herzberg, 1989).
Job satisfaction is a well-researched measure in policing with evidence that reforms such as COP can deliver improvements in the working environment and improvements in job satisfaction (Beck & Wilson, 1995; Buzawa, Austin, & Bannon, 1994; Zhao, Thurman, & He, 1999). Involvement in community policing initiatives can enhance job satisfaction by creating more fulfilling work (Buzawa, Austin, & Bannon, 1994; Green, 1989). Roche and Arcury (2002) found officers engaged in new community policing initiatives were more supportive of change and reported higher levels of job satisfaction than officers not so engaged. In a similar vein, Wilson and Beck (1995) concluded that well-executed police job redesign offers the opportunity for improved job satisfaction, in particular, giving staff the opportunity to complete a whole task and receive feedback. The strongest consistent finding from the research exploring police job satisfaction has been the relationship between length of service and marked decreases in job satisfaction (Beck & Wilson, 1995).

Organisational commitment assesses the affective attachment of individuals to the organisation they work for (Warr, 2002). Low levels of organisational commitment are typically associated with higher absenteeism, higher turnover, weaker performance and resistance to change (Beck & Wilson, 1995). Organisational commitment has been positively correlated with a management style where staff feel supported by the organisation, feel invested in the organisation, participate in decision making and get feedback about job performance and job requirements (Beck & Wilson, 1997). Staff who report higher levels of organisational commitment are also more likely to engage in extra role performance, they are prepared to extend themselves beyond the strict requirements of the job (Beck & Wilson, 1997). In policing terms this is likely to extend to discretionary police behaviour, staff with higher organisational
commitment will be more prepared to shape their discretionary time in the direction of reform (Beck & Wilson, 1995).

Beck and Wilson (1995) demonstrate that low levels of organisational commitment are associated with resistance to organisational change in police organisations. They also propose that officers can develop commitment to specific local procedures used by the organisation such that “commitment to the organisation is replaced by commitment to the procedures” (Beck & Wilson, 1995, p. 3). This idea echoes Scott’s (2003) suggestion that internal as well as external constituencies for policing methods develop, such that the method rather than the outcome or the organisation becomes the real focus of commitment.

Organisational commitment does not directly translate into commitment to innovation and reform. Ford, Weissbein, and Plamondon (2003) concluded that innovation uptake was shaped by specific strategy commitment rather than general organisational commitment. The authors noted that “strategy commitment was important when the desired outcome was a specified set of strategy-related behaviours” (Ford et al. 2003, p. 175). Organisational commitment can remain high while innovation commitment can fail to develop. Organisational commitment is well researched in Australia and New Zealand (Beck, 1996; Beck & Wilson, 1995, 1997, 1998a, 1998b; Wilson & Beck, 1995). The organisational commitment of officers in New Zealand is consistently higher than that of their Australian colleagues (Beck & Wilson, 1995).

Job satisfaction and organisational commitment are well-tested measures that have been used to monitor reform and change in organisations. There is evidence from Australia and internationally that reforms such as community
policing can improve officer job satisfaction. Low levels of organisational commitment have been associated with resistance to change and lower work performance. Care needs to be taken in evaluating organisational commitment, as it can be difficult to distinguish between commitment to the organisation and commitment to local operational protocols and procedures. ILP innovation in New Zealand is very likely to interact with officer job satisfaction and organisational commitment. Differences or improvements in job satisfaction and organisational commitment may signal how reform has improved the quality of work for individual officers.

3.4.5 Discretionary time

Police operate in a highly discretionary environment underpinned by factors such as role ambiguity, low visibility and significant levels of undirected time, and a developing body of research has investigated how police officers operate in this environment (Bowling & Foster, 2002; Famega, Frank, & Mazerolle, 2005; Hill, 2003; Lipsky, 1980; Mastrofski, 2004; Sun, 2003). In particular, researchers have sought to understand what factors influence officers to commit their discretionary time to performing some tasks over others. Establishing how officers can be encouraged to commit their discretionary time to ILP tasks will be critical to supporting innovation uptake.

Research examining how officers use their time frequently finds significant periods of unstructured discretionary time available to officers. Mastrofski (2004) found that patrol officers spend three-quarters of their time engaged in self-directed activities, with only a quarter of their time directed by supervisors or communication centres. This discretionary time was typically used in administrative activities, general patrol and personal breaks (Mastrofski, 2004).
Using data from a Baltimore observational study, Famega, Frank, and Mazerolle (2005) found a similar pattern of officer behaviour. Over three-quarters of officer time was undirected downtime and only 4% was spent on long-term activity to deal with a problem (Famega, Frank, & Mazerolle, 2005). Famega, Frank, & Mazerolle (2005) also found that police did not adopt proactive policing strategies and supervisors provided few, generally vague, directives to front-line staff. As a consequence, patrol officers elected to randomly patrol and wait for calls for service, behaving in a manner consistent with the standard model of policing (Weisburd & Eck, 2004). In another field study of officers in Indiana and Florida, Sun (2003) found that officers had significant discretionary time but elected not to engage in the proactive activities their departments encouraged. Mastrofski (2004, p. 114) highlighted the importance of understanding how officers actually used their discretionary time, calling for “much more sophisticated measures of how, where, and when officers are mobilising at their own discretion”.

### 3.4.6 Strategy-related behaviour

My review of the police innovation literature clearly demonstrates the multifaceted challenges of police innovation. In many cases innovations deliver outcomes at variance with the intentions of reformers (Lipsky, 1980; Maguire & King, 2003; Skolnick & Bayley, 1988; Townsley, Johnson & Pease, 2003; Scott, 2003; Weisburd et al., 2003). Frequently, the introduction of innovation or reform fails to change the officer behaviour (Weisburd & Eck, 2004). Most often officers persist in pursuing behaviour consistent with the standard model of policing (Weisburd & Eck, 2004), choosing to concentrate on reactive responses and after-the-fact investigation. As Weisburd and Eck (2004, p. 45)
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note, police like “enforcing the law” and are “commonly referred to as law enforcement agencies”. The nuanced problem-solving, proactive behaviour or community-based responses reformers hope for are frequently absent.

The most important outcome of introducing a strategic innovation such as ILP are changes in the behaviour of police officers. The goal of ILP is crime reduction and prevention. If ILP is operating effectively, police officers will apply evidence-based strategies and tactics as part of their day-to-day activities and will be prepared to use their discretionary time to follow the recommendations of their local Intelligence Unit and decision-maker. The successful convergence of organisational, environmental and individual factors is the performance of ILP behaviours by officers.

3.5 Approach and conclusion

My research project uses a methodology that minimises the influence of environmental factors, so as to allow the effects and interactions of the innovation life cycle to emerge as clearly as possible. This has been achieved by exploring innovation in a single country and in a national police agency with over 150 years of history. The operational police research sites share standard recruitment and training practices, policies, and command structures. This minimises the potential influence of the environment on these factors. The police areas are matched on economic, social and police factors. This approach will be discussed further in the next chapter.

In this chapter I have drawn from the police, innovation, organisational behaviour and leadership literature to identify important factors likely to impact on the uptake of ILP innovation in New Zealand. These factors provide the central framework I use to identify factors central to the uptake of ILP innovation
in New Zealand. Figure 3.1 summaries the factors presented in this chapter that are hypothesised to impact on the innovation life cycle.

As the National Research Council (2004) notes, the police innovation literature is scant and my research project is a response to that deficit. As well as gaps in the general police innovation literature, my research identifies any distinctive features arising from the context of police innovation in New Zealand. In the next chapter I set out the research approach and methods I used to investigate my research questions.
Figure 3.1: Hypothesised factors influencing the ILP innovation life cycle in New Zealand

- **Environmental Factors**
  - Environmental complexity, stability and neighbourhood factors. Relationships - media, local government, unions and community. Demand for services

- **Organisational Factors**
  - Leadership, formalisation, management style, manager commitment, management of change, culture, goals, loose coupling, boundaries, technology, overall innovation

- **Individual Factors**
  - Supervisor priorities, organisational commitment, job satisfaction, officer knowledge, officer commitment, officer use of discretionary time, officer performance of ILP behaviours

- **Direct and Interaction effects on ILP Innovation life cycle**

- **Possible Revision and Abandonment**

- **ILP Innovation life cycle Stages**
  - Knowledge and Awareness
  - Assessment Evaluation Learning
  - Implementation and Uptake
  - Routinisation Institutionalisation
Chapter 4: Methods

4.1 Introduction

New Zealand intelligence-led policing (ILP) innovation advanced in some locations and struggled in others. This presents an outstanding opportunity to understand the innovation process in police organisations and the factors that contribute to the successful adoption of innovation. The national structure of the New Zealand police districts and areas provides an exceptional laboratory for exploring the complex process of innovation uptake and resistance. My research contributes to the emerging research knowledge about the development of innovation within police organisations. My research addresses the question: What organisational, environmental and individual factors influence the adoption of ILP innovation and the emergence of resistance to change in New Zealand police organisations?

In this chapter I describe my research methodology, my approach and the operational police areas I studied to answer my research questions. I first present background information about the New Zealand Police (NZP) and the approach the NZP has taken to developing ILP. I describe the methodologies used and approach to site selection. The methodology is described in full in Appendix B. A description of my research sites is then presented, including key features and comparative data. I also examine the impact of ILP uptake on local reported crime.

The next section presents my overall research question, methodology and hypotheses that offer predictions at the organisational, environmental and individual levels. I answered my research questions by surveying officers at my
operational police research sites and interviewing key police and community respondents. I explain how key interview respondents were selected, the interview framework and how interview data were analysed. I also describe the design, conduct and analysis of my officer survey.

4.2 New Zealand Police

The NZP is New Zealand’s national and only public police organisation. The NZP employs 10,300 staff of whom 8,000 are sworn officers working from 360 police stations and offices across the country (New Zealand Police, 2008). New Zealand has a population of just over 4 million people, distributed over a land mass of 266,200 square kilometres, about the size of Japan and slightly larger than the United Kingdom (Statistics New Zealand, 2008). The NZP is a routinely unarmed police agency, drawing firearms only when the need arises.

The NZP is a national police agency, so all officers and police interview participants involved in this study are recruited to national standards, receive standardised preliminary training at the Royal New Zealand Police College, receive all subsequent nationally mandated training to national standards, and are subject to the same promotional regime, national policy, general instructions, complaint review procedures and performance regime. The NZP is under the command of a single Commissioner and officers are dispatched from three communications centres, which are nationally managed. NZP officers wear the same uniform, drive the same vehicles and use the same equipment. More than 99% of the officers are members of the same union, the New Zealand Police Association (Berry, O’Connor, Punch, & Wilson, 2008). Promotion and internal transfers are common between NZP districts and areas. All research participants are members of the NZP.
The NZP operates a distributed governance model. This involves managing a decentralised organisation divided into 12 districts, the Office of the Commissioner and Service Centres (New Zealand Police, 2008). The Office of the Commissioner is responsible for strategy and policy arrangements, as well as human resources, financial management and technology infrastructure. Service Centres oversee national functions such as prosecutions, communications and nationally mandated training. The 12 district commanders sit as part of the executive of the organisation and are responsible for managing their local districts. Districts are divided into Police areas. Districts typically operate with three police areas, although some of the larger districts with more dispersed populations operate with six police areas. Inspectors manage areas and typically employ 100–150 sworn officers (New Zealand Police, 2008). (See Figure 4.1, which shows New Zealand police areas.)

These arrangements are intended to encourage local innovation and initiative by district and area commanders (New Zealand Police, 2008). Within broad goal, policy, financial and employment settings, district commanders are charged with delivering police services that meet the needs of their local communities and support organisational goals of achieving crime reduction and improving community safety. District commanders have license to promote and encourage innovation (New Zealand Police, 2006). The Commissioner of Police expects district commanders to identify what works in their communities to achieve the goals of the organisation.
Figure 4.1: New Zealand Police districts and areas (from New Zealand Police, 2009)
Chapter 4: Methods

ILP emerged from the United Kingdom in the 1990s in response to calls for more effective business-like approaches to policing (John & Maguire, 2003, 2004; Maguire & John, 2006). ILP sought to make more effective use of police resources by targeting prolific offenders rather than responding to reported crime (John & Maguire, 2006; Ratcliffe, 2003, 2008; Ratcliffe & Guidetti, 2008). Since the late 1990s ILP has developed into a mature policing model that uses analysis and evidence, modern information management tools and focused partnerships (Ratcliffe, 2003, 2008; Tilley, 2003a, 2003b).

The NZP began experimenting with ILP some 10 years ago and from the late 1990s a small number of areas began experimenting with ILP innovation. Most districts and areas adopted some form of intelligence practice as part of their organisational structure (Office of the Auditor General, 2006). Since 2004 the uptake of ILP has accelerated with the development of the New Zealand crime and crash reduction model. This has encouraged (but not mandated areas and districts) to adopt ILP through standardised intelligence products and managing intelligence processes as suggested by Ratcliffe’s (2003) 3I model.

By using officers from operational police areas, I could control for many organisational features police scholars have previously studied. Features such as organisational age, origin and history, size, vertical differentiation, spatial differentiation, functional differentiation and centralisation (Maguire, 2003; Maguire & King, 2004; National Research Council, 2004) are mandated

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15 The crime and crash reduction model encouraged district and area commanders to implement ILP. The project was implemented through 2003, 2004 and early 2005. It has been described as a ground-up, socially networked, focused change management project (New Zealand Police, 2005). The crash component refers to motor vehicle crashes. Road policing and reducing road deaths and injuries make up a significant component of policing within New Zealand.
nationally and standardised across the country or shared by the operational police areas in this study. For example, vertical differentiation as reflected in the rank structure is standardised within New Zealand. Organisational history and functional differentiation such as the employment of detectives or community constables are shared features. Some organisational features such as technology are provided to national standards, but how local police areas use technology is open to local interpretation and development. As Winfree and Taylor (2004) note, the NZP is a unified national police agency and the common features shared by the NZP minimise the vagaries of recruitment, selection, training and other factors such as differences in policy and practice found in research conducted in many overseas police agencies. By conducting research within the NZP, many potentially influential extraneous variables could be screened out of the research. Subtle but potentially influential differences such as training factors or differences in the history of agencies are eliminated from this study. This provides a strong platform for this research to move forward.

ILP is not the only innovation being diffused within the NZP. Examples of other innovation includes the adoption of business excellence methodologies for business improvement in at least one police district, the use of telephone reporting units to record offence details and centralise crime reporting in several districts, the use of partnerships and problem-solving approaches to address alcohol-related violence problems and disorder, and the redesign and streamlining of some front-line processes (for example, bail checks and the use of beat books by road policing units). None of these initiatives is being centrally led (New Zealand Police, 2005).
4.3 Selection of research sites

To address my research questions I wanted to select a cross section from the 48 police areas of the NZP to study ILP uptake. I wanted the cross section to consist of two examples of police areas demonstrating strong uptake of ILP and two examples of areas demonstrating weak uptake of ILP. These sites could then be compared and contrasted on a range of factors using qualitative and quantitative research approaches to explore the uptake of ILP. The four operational police areas could not be selected randomly because of the need to find examples of strong and weak innovation uptake.

The site selection process was designed to identify NZP areas that met the following criteria:

The areas represent examples of strong and weak ILP innovation uptake within the NZP.

The areas were broadly similar and matched as far as practically possible in relation to environmental factors such as demographic, population and economic characteristics and general officer characteristics.

The detailed selection process and description of the sub-study are set out in Appendix B. The selection process was based on the work of Moore, Spelman and Young (1992). They describe a methodology for identifying police innovations, setting out an approach to understanding what constitutes innovation within a substantive field. I have adapted this approach and used it to identify innovative police areas within a national police organisation. By using this approach to site selection, I identified two strong and two weak ILP innovation uptake sites within the NZP.
Site selection was an important step in my research process. It was a critical step in conducting methodologically sound research and obtaining valid results that could be generalised to other police agencies. The site selection vetted NZP areas, assessing both the degree of general innovation and the degree of specific ILP innovation at possible research sites. This vetting considered the apparent development of ILP and the maturity of ILP at sites, using Ratcliffe’s (2003) intelligence model as a benchmark.

The selection process endeavoured to match areas on human resources variables within acceptable tolerances, including the numbers of sworn and non-sworn staff, ratios of staff between ranks (constables and sergeants, and management staff), and average length of service for sworn and non-sworn staff. Efforts were made to match the sites on demographic and economic variables, including total population, the population aged 10–25 years, the percentage of the area urban or rural, the Māori and Pacific populations, average annual household income, and unemployment rates. Given the broad background features arising from each area being part of the NZP and similarities arising from matching, I reasoned that the principal observed difference between the sites should be the uptake of ILP innovation.

Using the selection process set out in Appendix B, I selected four NZP operational areas. The research sites are all NZP areas based around provincial cities in the North Island of New Zealand. All selected areas are organised and structured in the same way. The areas are led by an area
commander at inspector level. Senior sergeants are the next management level reporting to area commanders and responsible for a diverse range of management tasks. Sergeants manage constables and are responsible for some administrative functions. The areas provide police services 24 hours a day, 7 days a week. Table 4.1 provides overall comparative site data concerning population and economic factors, and Table 4.2 provides comparative police staffing data.

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16 The inspectors were band two, which is equivalent to chief inspector rank in Australian and United Kingdom and captain in America, see http://en.wikipedia.org/wiki/Chief_Inspector
### Table 4.1: Comparative site data – population and economic data, 2005

<table>
<thead>
<tr>
<th>Total population</th>
<th>Population aged 10–25 years (% of total population)</th>
<th>% urban and rural of total area</th>
<th>Population diversity</th>
<th>Average household income (% earning $25,000 or less)</th>
<th>Number unemployed (% adult working population)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mātātā</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54,162</td>
<td>11,100 (20.5%)</td>
<td>Urban 3%</td>
<td>European* 43,662 (77%)</td>
<td>$14,800 (40.9%)</td>
<td>2,370 (9.6%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rural 97%</td>
<td>Māori 11,016 (20.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total area 4,653.5 sq km</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Takahē</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43,128</td>
<td>11,334 (26.3%)</td>
<td>Urban 2%;</td>
<td>European 39,111 (65.94%)</td>
<td>$14,862 (31%)</td>
<td>2,265 (8.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rural 98%</td>
<td>Māori 15,624 (26.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8,613 sq km</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hihi</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59,211</td>
<td>10,926 (18.4%)</td>
<td>Urban 4%;</td>
<td>Caucasian 49,278 (79.4%)</td>
<td>$18,735 (34.1%)</td>
<td>2217 (7.6%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rural 96%</td>
<td>Māori 10,122 (16.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>35,77.5 sq km</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Kea</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83,817</td>
<td>16,917 (20.18%)</td>
<td>Urban 2%;</td>
<td>Caucasian 65,850 (75%)</td>
<td>$24,138 (34.9%)</td>
<td>3,444 (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rural 98%</td>
<td>Māori 18,735 (21.36%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5,692.6 sq km</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60,079.5</td>
<td>12,569</td>
<td>5,634 sq km</td>
<td>21%</td>
<td>$18,133</td>
<td>8.71%</td>
</tr>
</tbody>
</table>

* Both European and Māori categorisations are determined through self-selection as part of the New Zealand census

### Table 4.2: Comparative site data – police staffing, 2005

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of sworn staff¹ (male; female)</th>
<th>Number of sworn management staff</th>
<th>Average years of service by sworn staff (male; female)</th>
<th>Number of non-sworn staff (male; female)</th>
<th>Average years of service by non-sworn staff (male; female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mātātā</td>
<td>90 (64; 12)</td>
<td>1 inspector; 4 senior sergeants (none female)</td>
<td>8.5 (8.8; 6.9)</td>
<td>20 (3; 17)</td>
<td>8 (8.7; 7.9)</td>
</tr>
<tr>
<td>Takahē</td>
<td>83 (72; 11)</td>
<td>1 inspector; 2 senior sergeants (none female)</td>
<td>8.9 (8.9; 5.5)</td>
<td>14 (2; 12)</td>
<td>8.1 (7.1; 8.2)</td>
</tr>
<tr>
<td>Hihi</td>
<td>95 (85; 10)</td>
<td>2 inspectors; 4 senior sergeants (none female)</td>
<td>14.7 (15.6; 8.4)</td>
<td>25 (4; 21)</td>
<td>11.5 (6.8; 12.3)</td>
</tr>
<tr>
<td>Kea</td>
<td>133 (110; 23)</td>
<td>2 inspectors; 6 senior sergeants (none female)</td>
<td>10.9 (11.8; 6.5)</td>
<td>41 (10; 31)</td>
<td>9.8 (10.5; 9.5)</td>
</tr>
<tr>
<td>Average</td>
<td>100.2</td>
<td>10.78</td>
<td>25</td>
<td>9.4</td>
<td></td>
</tr>
</tbody>
</table>

¹ Sworn staff = constables and sergeants.


#### 4.3.1 Selection process results in high level of confidence

The overall result of the selection process gave me a high level of confidence that I had identified excellent examples of strong and weak ILP innovation uptake sites and that the sites selected were well matched. Overall this was a highly worthwhile and illuminating process. The individual approaches gave significant insights into the state and maturity of ILP within the various areas. However, taken together the three approaches complemented
and supported each other well and left me with a high level of confidence that I had selected the right sites.

As a result of the site selection three-stage process, four research sites were selected; two sites representing strong deployment of ILP and two of weak ILP deployment. For the purposes of this study, the police areas have been given pseudonyms. Pseudonyms enhance the confidentiality of research participants. The pseudonyms used for the strong innovation uptake sites are Mātātā (pronounced phonetically Ma-ta-ta) and Takahē (pronounced phonetically Ta-ka-hei) and for the weak innovation uptake sites are Kea (pronounced phonetically Key-a) and Hihi (pronounced phonetically He-he).

The selected sites share a range of common features. All sites have encouragement and support from their respective district commanders for the deployment of ILP. All sites are police areas in New Zealand’s North Island, based around provincial cities. The sites are part of separate police districts, so any district-specific effects can be explored. All have experienced recent improvements in economic conditions as part of a general improvement in economic conditions in New Zealand. Data concerning police demographics and key environmental metrics have been obtained from the NZP and Statistics New Zealand and are included in Tables 4.1 and 4.2.

4.3.2 Strong innovative uptake sites Mātātā and Takahē

Mātātā and Takahē are police areas in New Zealand’s North Island. Like all four research sites, Mātātā and Takahē are typical New Zealand provincial

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17 The sites are named for native New Zealand birds: mātātā (fern bird), takahē (flightless gallinule), kea (mountain parrot) and hihi (stitchbird).
police areas, operating outside of large urban environments. Both police areas provide policing services to provincial cities and sizeable rural environments.

Mātātā employs 90 officers and sergeants, policing a regional population of 54,000 people. Most of the population resides in the city environs. Several smaller towns provide services to the rural community within the area. The indigenous Māori population makes up 20% of the area’s total population. As in the wider New Zealand economy, Mātātā experienced significant economic growth through the late 1990s to the time of my research. This saw improvements in economic conditions and lower unemployment rates. The economy is based on rural, service, education and, albeit to a lesser extent, tourist industries. Table 4.3 provides comparative economic data for all four research sites.

Takahē is the largest of the four areas in geographic terms and has the smallest population of just over 43,000 people. The proportion of the Takahē population who is Māori is the largest of the four areas at 26% of the population. Takahē has 83 officers and sergeants, making it the smallest research site. Takahē has a similar economic base to Mātātā, but with a stronger emphasis on tourism.

Both Mātātā and Takahē operate standard NZP area structures. They are headed by an area commander at inspector level. The area commander reports to the district commander. Both areas have one major and several minor sub-stations servicing rural communities. Table 4.4 presents comparative data for sworn officer and non-sworn staff for all research sites.

Mātātā has a history of innovation dating back to the mid-1990s. Of the two strong innovation sites, Mātātā is the most mature. Mātātā is an early adopter
of ILP (Rogers, 2003) and has been instrumental in diffusing ILP innovation to other NZP areas (New Zealand Police, 2005). In 2006 Mātātā operated a mature ILP policing model based on Ratcliffe’s (2003) 3I model and continues to explore opportunities for innovation (New Zealand Police, 2005).

Takahē has benefited from the diffusion of ILP from Mātātā. The promotion and internal movement of managers between the sites has seen ILP innovation promoted at Takahē. ILP has progressed rapidly at Takahē under its current area and district commanders.

ILP innovation is focused on effective crime management in particular volume crime like burglary, theft, vehicle crime and disorder (Ratcliffe, 2003; 2008), these crimes are the day to day currency of police work. As part of the introduction to my research sites I have reviewed the history of crime performance at my research sites and have considered how the adoption of ILP appears to have impacted on crime. This analysis is limited and correlational and as is not definitive. Further limitations on the analysis are discussed below.

Both Takahē and Mātātā have characteristic New Zealand crime problems, including gang offending, domestic violence, car crime and burglary. The introduction of ILP at Mātātā has been associated with sustained reductions in crime. Figure 4.2 shows the decrease in all monthly reported crime at Mātātā and Takahē between July 1994 (before Mātātā began experimenting with ILP) and June 2006 (when Mātātā was operating a mature ILP model). Reported monthly crime dropped from an average of 837 offences per month in 1994 to an average of 424 per month in 2006. I regressed crime on time establishing
an $R^2$ (multiple regression)\textsuperscript{18} = .834, pointing to a strong and consistent crime reduction.

In Takahē, reported monthly crime also dropped during the same period, but followed a pattern more consistent with wider New Zealand crime reductions over the period. Reported monthly crime decreased from an average 755 offences per month to 569. The reported $R^2 = .29$, which is more modest than that of Mātātā. Takahē is operating a quickly developing but less mature ILP model.

**Figure 4.2:** Monthly crime data, innovative sites, 1994–2006

\[\text{Takahē } R^2 = 0.29\]

\[\text{Mātātā } R^2 = 0.83\]

Source: New Zealand Police.

ILP uptake in New Zealand commenced in earnest around 2003. To enable a more recent comparison between the research sites, Figure 4.3 shows reported monthly crime at Mātātā and Takahē between June 2001 and July

\textsuperscript{18} Multiple regression assesses the degree to which one continuous variable is related to another continuous variable, in this case recorded crime on time (Tabachnick and Fidell, 2007).
During this period, average annual reported monthly crime dropped at Mātātā from 516 offences per month to 424 offences per month with an $R^2 = .38$. At Takahē, average annual reported monthly crime dropped from 686 offences per month to 569 offences per month with a more modest $R^2 = .18$. Crime data for Mātātā and Takahē for the same period is presented in Tables 4.1 and 4.2. Yearly figures show an overall drop in reported crime for the five-year period of 18% at Mātātā and 17% at Takahē. For the same period, the NZP reported a national 3% reduction in reported crime.

**Figure 4.3: Monthly crime data, innovative sites, 2001–2006**

Source: New Zealand Police.

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Consideration was given to using interrupted time series analysis to explore the effect of introducing ILP at the four research sites. A major difficulty identified with this approach was that the NZP’s distributed governance model means ILP had no definitive commencement date nationally or at the local police area level. Often aspects of ILP were introduced and trialled, sometimes dying away only to be re-established at a later date. The history of ILP was diverse and definitive start dates could not be established, which poses difficulties for modelling using time series analysis (Tabachnick and Fidell, 2007).
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Table 4.3: Yearly crime data, Mātātā, June 2001/02 – July 2005/06 (June years)

<table>
<thead>
<tr>
<th>Types of crime</th>
<th>2001/02</th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
<th>2005/06</th>
<th>% change 2001/02 to 2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>677</td>
<td>741</td>
<td>648</td>
<td>743</td>
<td>773</td>
<td>1.14</td>
</tr>
<tr>
<td>Sexual</td>
<td>43</td>
<td>39</td>
<td>38</td>
<td>32</td>
<td>35</td>
<td>0.81</td>
</tr>
<tr>
<td>Drugs and antisocial</td>
<td>773</td>
<td>525</td>
<td>507</td>
<td>437</td>
<td>474</td>
<td>0.61</td>
</tr>
<tr>
<td>Dishonesty</td>
<td>3,660</td>
<td>3,454</td>
<td>2,563</td>
<td>2,691</td>
<td>2,889</td>
<td>0.79</td>
</tr>
<tr>
<td>Property damage</td>
<td>687</td>
<td>671</td>
<td>624</td>
<td>614</td>
<td>666</td>
<td>0.97</td>
</tr>
<tr>
<td>Property abuse</td>
<td>321</td>
<td>247</td>
<td>228</td>
<td>191</td>
<td>181</td>
<td>0.56</td>
</tr>
<tr>
<td>Administrative</td>
<td>67</td>
<td>89</td>
<td>70</td>
<td>77</td>
<td>71</td>
<td>1.06</td>
</tr>
<tr>
<td>Total</td>
<td>6,228</td>
<td>5,766</td>
<td>4,678</td>
<td>4,785</td>
<td>5,089</td>
<td>0.82</td>
</tr>
</tbody>
</table>

Source: New Zealand Police.

The reported crime reductions at Mātātā are strong and have been sustained over a long period. The reported reductions in the five years to 2006 are on top of crime reductions achieved in the late 1990s. This suggests that ILP may have been very effective in supporting crime reduction at Mātātā. There is evidence that focused policing can be effective in reducing crime (Mazerolle, Rombouts, & McBroom, 2006; Ratcliffe, 2008; Weisburd & Eck, 2004) and the focused ILP policing at Mātātā may explain the reported crime reduction.
Table 4.4: Yearly crime data, Takahē, 2001/02–2005/2006 (June years)

<table>
<thead>
<tr>
<th>Types of crime</th>
<th>2001/02</th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
<th>2005/06</th>
<th>% change 2001/02 to 2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>782</td>
<td>727</td>
<td>833</td>
<td>825</td>
<td>810</td>
<td>1.04</td>
</tr>
<tr>
<td>Sexual</td>
<td>52</td>
<td>28</td>
<td>41</td>
<td>24</td>
<td>32</td>
<td>0.62</td>
</tr>
<tr>
<td>Drugs and antisocial</td>
<td>1,095</td>
<td>1,194</td>
<td>1,272</td>
<td>1,616</td>
<td>1,277</td>
<td>1.17</td>
</tr>
<tr>
<td>Dishonesty</td>
<td>4,406</td>
<td>4,038</td>
<td>4,168</td>
<td>3,313</td>
<td>3,212</td>
<td>0.73</td>
</tr>
<tr>
<td>Property damage</td>
<td>1,075</td>
<td>976</td>
<td>1,135</td>
<td>898</td>
<td>1,021</td>
<td>0.95</td>
</tr>
<tr>
<td>Property abuse</td>
<td>464</td>
<td>395</td>
<td>363</td>
<td>394</td>
<td>355</td>
<td>0.77</td>
</tr>
<tr>
<td>Administrative</td>
<td>354</td>
<td>353</td>
<td>172</td>
<td>169</td>
<td>115</td>
<td>0.33</td>
</tr>
<tr>
<td>Total</td>
<td>8,228</td>
<td>7,711</td>
<td>7,984</td>
<td>7,239</td>
<td>6,822</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Source: New Zealand Police.

4.3.3 Weak innovation uptake sites Kea and Hihi

Kea and Hihi are similar to Mātātā and Takahē in many respects. They are both centred on provincial cities in New Zealand’s North Island and have similar economies and operational environments. Kea and Hihi are slightly bigger in terms of policing staff and local population than Mātātā and Takahē. Hihi serves a population of 59,000 and has 95 officers and sergeants. Kea has a population of 83,000 with a 133 officers and sergeants. A smaller proportion of Hihi’s population is Māori (16%). The average length of service of officers at these sites is also longer than at the innovative sites. The average length of service at Hihi is 14.7 years. The average household income is also slightly higher at Hihi and Kea, but the unemployment rate and the percentage of the population earning under $25,000 are similar.
Figure 4.4 shows monthly reported crime data at Kea and Hihi from July 1994 to June 2006. In Hihi, average monthly reported crime dropped from an average of 806 offences per month in 1994 to 727 in 2006 with an $R^2 = .26$. In Kea, average monthly reported crime dropped from an average of 933 offences in 1994 to 813 in 2006 with an $R^2 = .11$. Over more recent years, when ILP uptake may have been more influential, reported monthly crime at Hihi increased slightly from an average of 658 offences in 2001/02 to 727 in 2005/06. In Kea, crime decreased from an average monthly 903 offences in 2001/02 to 813 in 2005/06. (See Figure 4.5.) The pattern of crime reduction at Kea is similar to that reported at innovative site Takahē. Tables 4.5 and 4.6 report crime data at the research sites for the same period, using crime categories and yearly statistics. These tables indicate that for these periods reported crime increased 10% at Hihi and decreased 10% at Kea.

**Figure 4.4:** Monthly crime data, non-innovative sites, 1994–2006

Source: New Zealand Police.
Intelligence-Led Policing in New Zealand

Figure 4.5: Monthly crime data, non-innovative sites, 2001–2006

![Graph showing monthly crime data, non-innovative sites, 2001–2006.]

Source: New Zealand Police.

Table 4.5: Yearly crime data, Hihi, 2001/02–2005/06

<table>
<thead>
<tr>
<th>Type of crime</th>
<th>2001/02</th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
<th>2005/06</th>
<th>% change 2001/02 to 2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>815</td>
<td>950</td>
<td>808</td>
<td>892</td>
<td>900</td>
<td>1.10</td>
</tr>
<tr>
<td>Sexual</td>
<td>54</td>
<td>61</td>
<td>36</td>
<td>45</td>
<td>74</td>
<td>1.37</td>
</tr>
<tr>
<td>Drugs and antisocial</td>
<td>1,057</td>
<td>1,357</td>
<td>1,382</td>
<td>1,102</td>
<td>1,109</td>
<td>1.05</td>
</tr>
<tr>
<td>Dishonesty</td>
<td>4,425</td>
<td>4,455</td>
<td>4,055</td>
<td>4,135</td>
<td>5,041</td>
<td>1.14</td>
</tr>
<tr>
<td>Property damage</td>
<td>924</td>
<td>893</td>
<td>832</td>
<td>833</td>
<td>1,190</td>
<td>1.29</td>
</tr>
<tr>
<td>Property abuse</td>
<td>348</td>
<td>408</td>
<td>420</td>
<td>372</td>
<td>342</td>
<td>0.98</td>
</tr>
<tr>
<td>Administrative</td>
<td>261</td>
<td>331</td>
<td>240</td>
<td>151</td>
<td>67</td>
<td>0.26</td>
</tr>
<tr>
<td>Total</td>
<td>7,884</td>
<td>8,455</td>
<td>7,773</td>
<td>7,530</td>
<td>8,723</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Source: New Zealand Police.
### Table 4.6: Yearly crime data, Kea, 2001/02–2005/06

<table>
<thead>
<tr>
<th>Type of crime</th>
<th>2001/02</th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
<th>2005/06</th>
<th>% change 2001/02 to 2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>1,285</td>
<td>1,144</td>
<td>1,276</td>
<td>1,192</td>
<td>1,467</td>
<td>1.14</td>
</tr>
<tr>
<td>Sexual</td>
<td>67</td>
<td>54</td>
<td>56</td>
<td>84</td>
<td>72</td>
<td>1.07</td>
</tr>
<tr>
<td>Drugs and antisocial</td>
<td>2,325</td>
<td>1,929</td>
<td>1,853</td>
<td>1,319</td>
<td>1,521</td>
<td>0.65</td>
</tr>
<tr>
<td>Dishonesty</td>
<td>5,132</td>
<td>5,047</td>
<td>4,930</td>
<td>4,902</td>
<td>5,212</td>
<td>1.02</td>
</tr>
<tr>
<td>Property damage</td>
<td>903</td>
<td>859</td>
<td>964</td>
<td>880</td>
<td>936</td>
<td>1.04</td>
</tr>
<tr>
<td>Property abuse</td>
<td>611</td>
<td>518</td>
<td>501</td>
<td>427</td>
<td>436</td>
<td>0.72</td>
</tr>
<tr>
<td>Administrative</td>
<td>426</td>
<td>450</td>
<td>610</td>
<td>322</td>
<td>108</td>
<td>0.25</td>
</tr>
<tr>
<td>Total</td>
<td>10,749</td>
<td>10,001</td>
<td>10,190</td>
<td>9,126</td>
<td>9,752</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Source: New Zealand Police.

### 4.4 Research design

Maxfield and Babbie (2001), Robson (2002), and Yin (2003) all point to a triangulated approach as the most robust research approach. My project applies both quantitative and qualitative research approaches to addressing my research questions. My project seeks to understand the influence of key organisational, environmental and individual factors on the uptake of ILP in New Zealand. Applying a multi-dimensional approach adds depth and perspective to the project. Yin (2003) points to four types of triangulation: triangulation of data sources, among different evaluators, of perspectives to the same data, and different research methodologies. In my study three of the recommended types of triangulation are applied. Different data sources are assessed, including survey data and interview data. Different theoretical perspectives drawn from the innovation and police literature are brought to bear and both qualitative and quantitative methodologies are used.
My research uses a quasi-experimental approach to answering the research questions. The study uses a non-equivalent groups design by matching two high innovation and two low innovation comparison police areas from the same national police agency on control variables (for example, staffing levels and social structure). The project focuses on generating as much homogeneity in the study sites as possible and selecting “treatment” sites that have implemented ILP with a high degree of integrity. Homogeneity is ensured by matching police areas with a high degree of innovation with similar sites with limited ILP innovation. Identified differences between the research sites advantaged weak uptake sites in innovation uptake.

The research aims of this project were addressed in two sub-studies. The first study surveyed officers stationed at the four research sites. My survey assessed officer perceptions of and attitudes towards organisational, environmental and individual factors influencing innovation uptake and resistance to change.

The second study involved in-depth thematic interviews with key participants and stakeholders at the research sites. This study used factors identified from the literature as a starting point for the interviews but allowed participants to tell their own stories, which were recorded for later analysis. The interviews complemented and contextualised the data obtained from the survey instrument. The interviews allowed unique features of New Zealand society, environment, policing context and organisation to be captured and explored. Unexpected factors and complex interactions could also emerge through this process.
4.4.1 Hypotheses

My research compares and contrasts research sites within the NZP to examine the factors associated with innovation and resistance to change. The general predicted direction of the research is that strong innovation uptake sites will present significantly different results across the survey measures in contrast to weak innovation uptake sites. Three hypotheses are proposed, at organisational, environmental and individual levels.

Organisational-level hypotheses

My organisational-level hypothesis is that police officers at innovative sites will report higher levels of commitment to organisational goals, greater levels of comfort with permeable organisational boundaries and more satisfaction with their local administrative apparatus than officers at non-innovative sites. Levels of formalisation will be lower and more approval for the way technology is managed and integrated within their local organisation will be reported. Officers will perceive stronger, clearer and more committed leadership, a more participative and engaging management style and greater levels of commitment to ILP from their immediate supervisors. Officers will further report a more supportive organisational culture and better change management and perceive less loose coupling between organisational goals and acceptable or tolerable behaviour.

Environmental-level hypotheses

My environmental-level hypothesis is that police officers at innovative sites will report more positive relationships with the media, local authorities, police unions and the wider community than officers at non-innovative sites. They will also report more manageable input demand, less environmental complexity,
Intelligence-Led Policing in New Zealand

more environmental stability and more consistency of behaviour across local
neighbourhoods than officers at non-innovative sites.

**Individual-level hypothesis**

My individual-level hypothesis is that police officers at innovative sites will
self-report higher levels of ILP behaviours, more knowledge of ILP innovation,
higher levels of job satisfaction and organisational commitment, greater
willingness to use their discretionary time to engage in discretionary ILP-related
behaviours and higher levels of commitment to ILP innovation than officers at
non-innovative sites.

4.4.2 Officer survey

A survey of operational police officers at my research sites was the first
major component of my research project. Conducting surveys is a cost-
effective, transparent and simple way to gather large amounts of data (Robson,
2002). Surveys can be conducted quickly and allow a high level of
confidentiality for participants (Robson, 2002). However, survey research also
presents pitfalls that researchers need to guard against. Participants may be
poorly motivated or unable to recall important information relevant to the survey
(Maxfield & Babbie, 2001; Robson, 2002). Surveys also need to extract valid
data that can be generalised to wider populations (Maxfield & Babbie, 2001;
Robson, 2002). To generalise survey data to wider populations, the survey
sample needs to accurately represent the wider population and the survey
needs to extract valid information (Maxfield & Babbie, 2001; Robson, 2002).

I used the population of all serving police officers across the four study
sites. The results are likely to be generalisable to international police
populations, particularly in other Western countries. In particular, survey results
are likely to be generalisable to officers in New Zealand’s near neighbour Australia and countries with shared cultural, social, political and historical features such as the United Kingdom and United States of America.

I designed and constructed the survey instrument, drawing some items for inclusion from other studies (see Appendix C). The survey obtained demographic information and contained measures of the key organisational, environmental and individual factors identified from the literature as likely to impact on police attitudes and behaviour. Demographic variables included: gender, race, length of service, rank, education, previous occupation, home internet availability, age and strong innovation sites versus weak innovation sites.

The variables used in the survey instrument were introduced in Chapter 2. At the organisational level the variables used were Goals, Boundaries, Formalisation, Technology, Transactional Leadership, Transformational Leadership, Management style, Organisational culture, Management of change, Loose coupling, Interconnectedness, Management commitment to ILP and Innovativeness. At the Environmental level the variables were Media coverage, Local Government, Police unions, Community relations, Input demand, Environmental Complexity, Environmental stability and Neighbourhood factors. At the individual level the factors were Knowledge of ILP, Commitment to ILP, Organisational commitment, Job satisfaction, Discretionary time and Strategy related behaviour. The details of the literature and previous surveys used as sources to construct the survey instrument and a description of the construction of each survey item are in Appendix C. The survey instrument used is reproduced in Appendix D.
Survey consultation and pre-testing

Consultation was completed on the draft survey instrument with feedback invited about the instrument from policing academics in Australia and internationally. Feedback was positive. Comments were made about the soundness of the instrument and the length and ambitiousness of the survey. It was suggested the survey needed to be shorter. Constructive advice was also offered about measuring the effect of the administrative apparatus by including an item that asked officers whether they felt it was a long way up from their position in the organisation to the commander’s office. This item was added to the survey. This feedback was considered, and the survey was reduced in size so it could be completed in about 20 minutes.

I pre-tested the modified survey instrument to ensure the constructs were valid and reliable. Nine officers from a New Zealand police area not involved in the research were asked to complete the survey and a feedback form about the survey. The form asked officers whether: they found any questions confusing, the survey was readable, any questions were offensive, the flow of questions was logical and the order of questions made sense. Pre-testing confirmed that officers were clear about the concepts used, showing that the survey items had face validity. Pre-testing also demonstrated that the survey items showed logical relationships amongst the variables (Maxfield & Babbie, 2001). The wide range of externally sourced items incorporated in the survey instrument support the criterion validity (Maxfield & Babbie, 2001) of the survey (see Appendix C). Logical relationships should be evident between variables like officer commitment to ILP and variables such as leadership.
The officers involved in the pre-testing included Māori, European and Polynesian officers with service of 2.5 years to 27 years, and included detectives, general duties officers and a youth aid officer. Some officers were knowledgeable about ILP and some officers were not. Five of the nine officers completed the survey comfortably and had no comments to make about the survey. Four officers made comments. All of the comments concerned single items in the survey and offered suggestions for improvement. These suggestions were evaluated and changes were made where appropriate. The overall commentary from the officers was positive and this provided a high level of confidence about the utility of the survey instrument.

**Administration of the survey**

The unit of analysis for the officer survey was individual police members. The data were collected by taking the whole population of sworn police officers from each of the four research sites. I aimed to obtain an 80% return from the overall population of officers at each research site. The first approach to all prospective officer participants was an introductory letter explaining the research and introducing the researcher. I followed this letter up with a personal visit to each research site and major station within each research site. I attended pre-deployment roll calls and meetings at each station where surveys were administered and returned. I visited officer groups working permanent day shift (for example, detectives and community constables) and made arrangements for surveys to be completed and either immediately picked up by me or returned to me by post. I arranged with key contacts at each research site to encourage officers to complete surveys and return them to me. Follow-
Field work at my research sites identified that officer groups being targeted for the survey needed to be adjusted. At Takahē a group of eligible road policing officers needed to be included in the staffing data received from the NZP, which increased the number of survey-eligible officers. It was confirmed that only one inspector, the area commander, worked at Kea and Hihi. Reported positions were roles in which inspectors were being “grand-parented” following the integration of the then Ministry of Transport with the New Zealand Police in the 1990s and these positions were defunct. Adjustments were also made at all sites to exclude from the survey officers working in local Intelligence Units. These officers were the subject of many of the survey questions, but did not generally get an opportunity to perform ILP-related tasks and the survey focused on operational officer engagement not specialist officers. A small number of other officers included in the staffing data received from the NZP, were actually attached to national service centres. These officers were excluded, because they were not actively involved in local policing (for example, police prosecution service centre staff). Adjustments were also made for vacant officer positions. Table 4.7 provides the original proposed eligible populations for each area, the adjusted eligible officer populations for each area, the number of surveys returned, local return rates and overall return rates.
Chapter 4: Methods

Table 4.7: Return rates for intelligence-led policing survey

<table>
<thead>
<tr>
<th>Sites</th>
<th>Number of staff⁷</th>
<th>Adjusted eligible officer population</th>
<th>Number of officer survey returns</th>
<th>Return rate (of adjusted n) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovative sites</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mātātā</td>
<td>90</td>
<td>85</td>
<td>67</td>
<td>78.82</td>
</tr>
<tr>
<td>Takahē</td>
<td>83</td>
<td>91</td>
<td>75</td>
<td>82.42</td>
</tr>
<tr>
<td><strong>Non-innovative sites</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hihi</td>
<td>95</td>
<td>80</td>
<td>59</td>
<td>73.75</td>
</tr>
<tr>
<td>Kea</td>
<td>133</td>
<td>121</td>
<td>85</td>
<td>70.25</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td>401</td>
<td>377</td>
<td>286</td>
<td>75.86</td>
</tr>
</tbody>
</table>

1 Original proposed eligible populations as reported by the New Zealand Police, December 2005.

The officer survey and interviews with key respondents were conducted in two main clusters of research activity. The first was in June 2006 at Kea and Hihi. The second was in September 2006 at Mātātā and Takahē. Some interview follow-up was completed at Mātātā in February 2007. Table 4.8 shows the comparative officer demographic data for each research site. An analysis of group equivalence is discussed in the next section.

The data gathered from the officers was tested for differences on the dependent variables between research sites to determine the key factors associated with variability in the uptake of innovation. Officer survey data was analysed using a multivariate analysis of variance (MANOVA) utilising the computer software SPSS. MANOVA identifies the main and interaction effects of categorical variables on multiple dependent interval variables (Garson, 2005). MANOVA uses one or more categorical independent variables as predictors and two or more dependent variables (Statsoft, 2005). Garson (2005, p. 1) notes:
where ANOVA tests the differences in means of the interval dependent for various categories of the independent(s), MANOVA tests the differences in the centroid (vector) of means of the multiple interval dependents, for various categories of the independent(s) ... one may also perform planned comparison or post hoc comparisons to see which values of a factor contribute most to the explanation of the dependents.

One of the main advantages of multivariate design is that it provides a more powerful statistical test of the effect of the factors than designs that investigate just one factor at a time (Bryman & Cramer, 2001). Garson (2005, p. 1) identifies multiple potential purposes for MANOVA, including comparing groups formed by categorical independent variables on group differences in a set of interval-dependent variables. To use lack of difference for a set of dependent variables as a criterion for reducing a set of independent variables to a smaller, more easily modelled number of variables and to identify the independent variables that best differentiate a set of dependent variables.

The final dependent variables used in the analysis were created as interval-level measures. First, using my conceptual framework (organisational, environmental, individual), I examined composite scores across different variables in each of my conceptual groupings. Second, I ran a factor analysis of my proposed dependent variables to ascertain whether any statistical groupings were statistically sound and conceptually coherent.

Demographic data gathered from survey participants is set out in Table 4.8. The research approach aimed to match the survey sites as closely as possible so as to minimise the possible impacts of potential extraneous variables. This allows an examination of how factors at the organisational environmental and individual levels interacted within similar police areas with different experiences of innovation. The high survey return rate ensured a representative sample of
officers at each research site was obtained. The average length of officer service is higher in my data than in data reported by the NZP. This is because I included total years in law enforcement, including service in the Ministry of Transport, which was a traffic enforcement agency that combined with the NZP in 1992. These years were not included in NZP service figures. The inclusion of these years increased overall averages.

**Table 4.8: Overall officer survey demographic data**

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Mātātā No.</th>
<th>Mātātā %</th>
<th>Takahē No.</th>
<th>Takahē %</th>
<th>Hihi No.</th>
<th>Hihi %</th>
<th>Kea No.</th>
<th>Kea %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>57</td>
<td>85.0</td>
<td>60</td>
<td>80.0</td>
<td>52</td>
<td>88.0</td>
<td>67</td>
<td>78.0</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
<td>5.9</td>
<td>13</td>
<td>17.3</td>
<td>5</td>
<td>8.4</td>
<td>13</td>
<td>15.2</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>4.4</td>
<td>2</td>
<td>2.6</td>
<td>2</td>
<td>3.3</td>
<td>5</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>54</td>
<td>80.5</td>
<td>56</td>
<td>74.6</td>
<td>49</td>
<td>83.0</td>
<td>56</td>
<td>65.9</td>
</tr>
<tr>
<td>Māori and Pacific</td>
<td>8</td>
<td>11.9</td>
<td>15</td>
<td>20.0</td>
<td>7</td>
<td>11.8</td>
<td>20</td>
<td>23.5</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>7.5</td>
<td>4</td>
<td>5.3</td>
<td>3</td>
<td>5.0</td>
<td>9</td>
<td>10.5</td>
</tr>
<tr>
<td><strong>Rank</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constable</td>
<td>51</td>
<td>76.1</td>
<td>57</td>
<td>76.0</td>
<td>52</td>
<td>88.1</td>
<td>67</td>
<td>78.8</td>
</tr>
<tr>
<td>Sergeant</td>
<td>16</td>
<td>23.9</td>
<td>15</td>
<td>20.0</td>
<td>7</td>
<td>11.9</td>
<td>12</td>
<td>14.1</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>4.0</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>7.1</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No university</td>
<td>52</td>
<td>77.6</td>
<td>63</td>
<td>84.0</td>
<td>35</td>
<td>64.4</td>
<td>51</td>
<td>60.0</td>
</tr>
<tr>
<td>University qualified</td>
<td>5</td>
<td>7.5</td>
<td>9</td>
<td>8.3</td>
<td>9</td>
<td>15.3</td>
<td>8</td>
<td>9.4</td>
</tr>
<tr>
<td>Missing</td>
<td>10</td>
<td>14.9</td>
<td>3</td>
<td>4.0</td>
<td>15</td>
<td>25.4</td>
<td>26</td>
<td>30.6</td>
</tr>
<tr>
<td><strong>Previous occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-professional</td>
<td>61</td>
<td>91.0</td>
<td>63</td>
<td>84.0</td>
<td>46</td>
<td>78.0</td>
<td>64</td>
<td>75.3</td>
</tr>
<tr>
<td>Professional</td>
<td>5</td>
<td>7.5</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>20.3</td>
<td>13</td>
<td>15.3</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1.5</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>1.7</td>
<td>8</td>
<td>9.41</td>
</tr>
</tbody>
</table>

Home internet
To check group equivalence across the surveyed operational police research sites, a MANOVA test was conducted. After checking the frequencies and univariate and multivariate normality of the demographic data between groups, MANOVA was performed to assess whether any statistically significant differences based on the demographic data existed between the four sites. The independent variables were the police sites, the dependent variables were sex, ethnicity, previous occupation, rank, education, home internet and total years in law enforcement. No statistically significant differences were observed, meaning the samples for each site were statistically similar.

To analyse the survey data a codebook was prepared and all of the surveys were entered into SPSS. Tabachnick and Fidell (2007) emphasise the importance of screening data before any analysis is run. Data screening involves assessing the accuracy of the data file, distribution of the scores and amount of missing data (Tabachnick & Fidell, 2007). Carefully addressing these issues enables an “honest analysis of the data” (Tabachnick & Fidell, 2007, p. 60). To meet this standard, the data obtained from the officer survey was scrutinised in the following way. Frequency analyses were conducted on all variables to examine the distribution of the data. No obvious data errors were detected, but the analysis did identify that the initial coding of some variables might make subsequent interpretation of results problematic. This was due to a mix of both high and low scores on the variables, indicating higher

20 A preliminary assessment of the data identified that two sworn officers based in the Intelligence section at Mātātā had completed the survey, so their surveys were removed from the data set.
levels of the variable. For example, a high score for the variable knowledge of ILP indicated greater knowledge of ILP, but a high score for the variable transactional leadership indicated an absence of transactional leadership. To correct this problem, several items were recoded so that higher scores indicated high levels of what was being measured. Items that already matched low and high scores with low and high levels were unchanged. Items where higher scores did not indicate more of the item being measured were reversed to ensure that a higher score matched higher levels of the target variable. A copy of the officer survey instrument was then adjusted to reflect the adjustments made to the data file and provide an easy reference showing the changes made. This copy was used as a reference document, illustrating the changed response categories. This document is in Appendix E.

The next stage of the data-screening process involved checking the multivariate normality of the recoded total variables. MANOVA tests are based on multivariate normal distribution. However, MANOVA is for practical purposes robust to moderate violations of normality (Tabachnick & Fidell, 2007). Tabachnick and Fidell note that MANOVA has shown robustness to non-normality with a minimum of N = 40 (n = 10 per group). An inspection of the data showed no out of range values and confirmed plausible means and standard deviations. There were no obvious univariate outliers. There was no

---

21 For clarity I have noted both reversed scored and recoded variables. The recoded and reversed scored variables were: Question (Q) 2a; Q2c; Q3a to Q3e; Q4a; Q4b; Q4d; Q7b reversed; Q8b; Q8c; Q9a reversed; Q9b; Q10a; Q10b reversed; Q10c; Q10d; Q11a reversed; Q11b; Q11c; Q12a to Q12d; Q13a reversed; Q14a; Q14b reversed; Q14c to 14e; Q15a; Q15b; Q16a to 16d; Q17a to Q17c; Q17d reversed; Q17e; Q18a to Q18e; Q19a to 19h; Q20a to Q20e; Q21a to Q21e; Q22a reversed; Q22b to 22d; Q23a; Q23b; Q23c reversed; Q24a; Q24b; Q24c reversed; Q24d; Q25a to Q25c; Q26a to Q26d.
indication of incorrect data entry or confusion about missing data values within the data set. No evidence of samples being included from outside the intended population was detected nor were extreme values indicating a non-normal distribution.

The variables were examined for skewness and kurtosis. Kurtosis was acceptable and unlikely to influence estimates of variance, particularly given the sample size (Tabachnick & Fidell, 2007). Several variables showed evidence of being skewed. This suggested some non-normality among the variables. Three approaches were taken to determine the best way to deal with the non-normality. The effect of trimming the means was assessed by reviewing means for each variable with the 5% trimmed mean. For all variables, trimming outliers caused virtually no change in the mean, suggesting outliers were not responsible for non-normality. Z-score and square root transformations were completed for all variables to test the effect of transformations in improving normality. For all the total variables, the transformations either worsened or did not notably improve skewness. Given the sample size (n = 286) it was decided to rely on the robustness of MANOVA in dealing with moderate violations of normality (Tabachnick & Fidell, 2007).

The completed frequency analyses indicated that levels of missing responses (coded as 88 ‘Missing’; ‘don’t know’ was not provided as an option in the survey) were within acceptable limits for all items. The next step was to assess the pattern of missing data (Tabachnick & Fidell, 2007). A missing value analysis was completed on the data in SPSS to assess whether the missing data was “non-ignorable” or “missing at random”. The analysis indicated that the data were missing randomly. It was, therefore, decided to use
the expectation maximisation (EM) algorithm to input an estimated score for
missing data within the main response data set. EM values were not estimated
for any missing demographic data. The EM algorithm corrects for any
underestimation of the variance by adding residual error terms (Regoeczi &
Riedel, 2003). The analysis completed for this research uses data containing
the EM-ascribed values.

Once missing data were addressed, the variables were recoded into total
variable scores intended to measure the overall variable. The new total
variables were based on the literature and theoretical constructs. Eight of the
new variables had not previously been explored using a survey instrument and
addressed complex theoretical constructs such as willingness to use
discretionary time and officer views about environmental complexity and
boundary changes. The eight variables were knowledge of ILP, commitment to
ILP, strategy-related behaviour, environmental complexity, environmental
stability, neighbourhood factors, boundaries, and management commitment to
ILP.

Twenty-seven new total variable scales were created. At the organisational
level, 13 variables were created: goals, boundaries, formalisation, technology,
transactional leadership, transformational leadership, management style,
organisational culture, management of change, loose coupling,
interconnectedness, management commitment to ILP, and innovativeness. At
the environmental level, eight variables were created: media coverage, local
government, police unions, input demand, environmental complexity,
environmental stability, neighbourhood factors and community relations. At the
individual level, six variables were created: knowledge of ILP, commitment to
Multivariate analysis of variance

The research was designed to apply MANOVA using SPSS to test for variable differences across the sites. MANOVA investigates “whether mean differences amongst groups on a combination of dependent variables are likely to have occurred by chance” (Tabachnick & Fidell, 2007, p. 243).

The use of statistical techniques with multiple comparisons increases the possibility of false positives. Type 1 error results in the null hypothesis being rejected when it is true (Tabachnick and Fidel, 2007). The use of MANOVA controls for the risk of Type 1 error (Tabachnick and Fidel, 2007). For each of the comparisons completed statistics including F, df, and full p values are provided and values of p < 0.05 are flagged. Partial Eta Squared values have also been reported, which describe the the variance in the dependent variable predicatable from the the independent variable (Tabachnick and Fidel, 2007). Effect sizes range from small .01, through moderate .06, to large .14 (Tabachnick and Fidel, 2007).

The dependent variables were drawn from the literature using the organisational, environmental and individual framework discussed in Chapter 3. To provide additional support for this framework, a factor analysis was completed using variables contributing to the proposed organisational, environmental and individual analytical framework to check that the variables clustered logically within the framework and to check for multicollinearity. Tabachnick and Fidel (2007) recommend thinking carefully before including variables with bivariate correlations above .7 and modifying or eliminating
variables correlating above .9. No bivariate correlations met the .7 threshold. The factor analysis provided general support for the use of an organisational, environmental and individual framework.

Cronbach Alpha coefficients were generated for each of the total variables created to check how well the total variables operated. The option of removing an individual item or items from the new variables to improve the operation of the new variables was reviewed.

At the organisational level, five items were removed to improve the operation of variables. Item 16a – sworn staff was removed from the variable boundaries, increasing the Cronbach Alpha from .66 to .74. Item 21e – ideals of police work was removed from the variable organisational culture, increasing the Cronbach Alpha from .46 to .56. Item 23c – area commander immediate supervisor was removed from the variable loose coupling, increasing the Cronbach Alpha coefficient from .52 to .77. Item 24c – problems exist was removed from the variable Interconnectedness, increasing the Cronbach Alpha from .63 to .69. Item 26a – risk taking was removed from the variable Innovativeness, increasing the Cronbach Alpha from .75 to .81.

At the environmental level, two variables had items removed to improve their Cronbach Alpha loadings. The operation of the variable community relations was improved by removing Item 10c – excellent relations, lifting the Cronbach Alpha from .64 to .66. The operation of the variable neighbourhood factors was improved by removing item 14b – neighbourhoods are more or less the same, increasing the Cronbach Alpha from .46 to .54.

At the individual level, the factors organisational commitment and job satisfaction were correlated at .61. The job satisfaction measure included only
one item and combining the job satisfaction and organisational commitment items to form a combined variable organisational commitment / job satisfaction increased the Cronbach Alpha from .73 to .74. It was decided to combine the two variables to provide a new variable that assessed individual organisational commitment and satisfaction. The combination was theoretically sound because job satisfaction and organisational commitment are closely related concepts. Table 4.9 presents a summary of all of the variables.
Table 4.9: Scale items details (n = 286)

<table>
<thead>
<tr>
<th>Factors</th>
<th>No. of items</th>
<th>M (SE)</th>
<th>SD</th>
<th>Range</th>
<th>α (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goals</td>
<td>2</td>
<td>6.1 (.05)</td>
<td>.88</td>
<td>6</td>
<td>.70 (.62–.76)</td>
</tr>
<tr>
<td>Boundaries</td>
<td>3</td>
<td>10.03 (.08)</td>
<td>1.43</td>
<td>9</td>
<td>.74 (.68–.79)</td>
</tr>
<tr>
<td>Formalisation</td>
<td>3</td>
<td>10.11 (.11)</td>
<td>1.84</td>
<td>9</td>
<td>.52 (.42–.60)</td>
</tr>
<tr>
<td>Technology</td>
<td>5</td>
<td>13.70 (.15)</td>
<td>2.56</td>
<td>15</td>
<td>.81 (.77–.84)</td>
</tr>
<tr>
<td>Transactional leadership</td>
<td>4</td>
<td>11.68 (.09)</td>
<td>1.60</td>
<td>12</td>
<td>.70 (.65–.76)</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>4</td>
<td>11.11 (.11)</td>
<td>2.02</td>
<td>12</td>
<td>.77 (.73–.81)</td>
</tr>
<tr>
<td>Management style</td>
<td>5</td>
<td>13.33 (.09)</td>
<td>1.57</td>
<td>11</td>
<td>.71 (.65–.76)</td>
</tr>
<tr>
<td>Organisational culture</td>
<td>4</td>
<td>9.07 (.10)</td>
<td>1.73</td>
<td>9</td>
<td>.56 (.47–.64)</td>
</tr>
<tr>
<td>Management of change</td>
<td>4</td>
<td>9.74 (.11)</td>
<td>1.84</td>
<td>9</td>
<td>.77 (.73–.81)</td>
</tr>
<tr>
<td>Loose coupling</td>
<td>2</td>
<td>5.09 (.06)</td>
<td>1.03</td>
<td>7</td>
<td>.77 (.73–.81)</td>
</tr>
<tr>
<td>Interconnectedness</td>
<td>4</td>
<td>9.00 (.08)</td>
<td>1.23</td>
<td>7</td>
<td>.69 (.61–.74)</td>
</tr>
<tr>
<td>Management commitment to ILP</td>
<td>3</td>
<td>8.75 (.09)</td>
<td>1.49</td>
<td>9</td>
<td>.78 (.73–.82)</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>3</td>
<td>8.07 (.09)</td>
<td>1.45</td>
<td>9</td>
<td>.81 (.77–.85)</td>
</tr>
<tr>
<td><strong>Environmental factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media coverage</td>
<td>4</td>
<td>9.86 (.09)</td>
<td>1.40</td>
<td>7.84</td>
<td>-.23 (-.48 – -.01)</td>
</tr>
<tr>
<td>Local government</td>
<td>3</td>
<td>8.50 (.08)</td>
<td>1.40</td>
<td>9</td>
<td>.69 (.62–.75)</td>
</tr>
<tr>
<td>Police unions</td>
<td>2</td>
<td>5.86 (.04)</td>
<td>.71</td>
<td>6</td>
<td>.47 (.33–.58)</td>
</tr>
<tr>
<td>Community relations</td>
<td>3</td>
<td>8.88 (.07)</td>
<td>1.17</td>
<td>8</td>
<td>.66 (.59–.73)</td>
</tr>
<tr>
<td>Input demand</td>
<td>3</td>
<td>8.48 (.09)</td>
<td>1.45</td>
<td>7</td>
<td>.64 (.55–.70)</td>
</tr>
<tr>
<td>Environmental complexity</td>
<td>4</td>
<td>10.72 (.08)</td>
<td>1.40</td>
<td>10</td>
<td>.43 (.31–.53)</td>
</tr>
<tr>
<td>Environmental stability</td>
<td>4</td>
<td>10.21 (.09)</td>
<td>1.85</td>
<td>11</td>
<td>.47 (.37–.57)</td>
</tr>
<tr>
<td>Neighbourhood factors</td>
<td>4</td>
<td>10.29 (.11)</td>
<td>1.85</td>
<td>11</td>
<td>.54 (.44–.62)</td>
</tr>
</tbody>
</table>
### Intelligence-Led Policing in New Zealand

<table>
<thead>
<tr>
<th>Factors</th>
<th>No. of items</th>
<th>M (SE)</th>
<th>SD</th>
<th>Range</th>
<th>α (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of ILP</td>
<td>5</td>
<td>11.88 (.20)</td>
<td>3.38</td>
<td>15</td>
<td>.80 (.77–.84)</td>
</tr>
<tr>
<td>Commitment to ILP</td>
<td>4</td>
<td>11.70 (.13)</td>
<td>3.22</td>
<td>12</td>
<td>.81 (.77–.85)</td>
</tr>
<tr>
<td>Organisational commitment / job satisfaction</td>
<td>4</td>
<td>13.10 (.10)</td>
<td>1.70</td>
<td>9</td>
<td>.73 (.68–.78)</td>
</tr>
<tr>
<td>Discretionary time</td>
<td>4</td>
<td>11.85 (.12)</td>
<td>2.10</td>
<td>12</td>
<td>.78 (.73–.82)</td>
</tr>
<tr>
<td>Strategy-related behaviour</td>
<td>4</td>
<td>16.4 (.27)</td>
<td>7.70</td>
<td>20</td>
<td>.82 (.78–.85)</td>
</tr>
</tbody>
</table>

Note: M = mean; SE = standard error; SD = standard deviation; α = Cronbach Alpha; CI = confidence interval.

These improvements still left items with low CronbachAlpha scores. Atiken (2000) suggests that CronbachAlpha scores of .6 or higher are suitable for comparing groups. Of the now 26 items contained in the survey for analysis seven items contained CronbachAlpha’s that did not meet the .6 threshold. Two organisational factors failed to meet the threshold: formalisation at .52 and organisational culture at .56. Five environmental factors failed to meet the threshold: media coverage at -.23, police unions at .47, environmental complexity at .43, environmental stability at .47 and neighbourhood factors at .54. No individual factors failed to meet the .6 threshold. The prospect of improving the CronbachAlpha scores of these variables by removing individual items from the total variables was explored, but removing individual items did not improve the scores. For the purposes of this analysis and to preserve the completeness of the data set no further changes were made to the variables. It was decided to adopt a more cautionary approach to interpreting results relating to factors with low CronbachAlphas.
4.4.3 Interviews with key respondents

My qualitative interviews with key respondents evaluated features of ILP innovation uptake at my research sites. My interviews addressed the research questions by using open-ended questions based on factors and themes identified in my literature review. Unexpected or novel material arising from the interview was explored during the interview process, which allowed unique features of the New Zealand or local environment to be examined.

Robson (2002) suggests that interviews are a particularly appropriate methodology in three situations relevant to this study. The first situation is where studies involve developing individual perceptions of processes within a work group or social unit. The second is where individual accounts of how a particular phenomenon developed are needed. The third is where there is a need to complement quantitative data with clarification and illustration of findings. My interviews with key respondents explored individual perceptions about ILP uptake and established a large body of illustrative material that complemented my quantitative findings.

Interviews provide a flexible and adaptable method of investigation and enable researchers to participate in context-rich interactions with subjects (Marshall & Rossman, 1989). However, interviews also present considerable challenges to researchers. A lack of standardisation or the operation of bias can lead to concerns about the reliability of information obtained from interviews (Marshall & Rossman, 1989). Interviews also present practical challenges such as conducting the interview itself, ensuring timeliness, recording the interview and managing ethical and support issues for the interviewee (Robson, 2003).
These challenges were overcome by carefully planning and budgeting sufficient time to plan and conduct post-interview analysis (Robson, 2003).

The interview questions were developed from topics identified from the literature review. Two closely related sets of questions were prepared: one set of questions for police managers and one set for community partners. The style of questioning was semi-structured with the prepared questions used as a framework or starting point. Subjects were given the opportunity to express their views and develop their ideas from these questions. When subjects took the opportunity to present their own ideas or develop unique topics this was encouraged, but the prepared questions were used to later bring them back into the semi-structured framework. All interviews were digitally recorded and transcribed verbatim. The interview questions were grounded in the literature review and are attached as appendices. Appendix F contains the questions for police managers. Appendix G provides the questions for community partners.

Interviews were conducted with key informants at all four research sites. Key informants were identified who could provide internal police perspectives on the innovation process or who were external partners who could provide an external community perspective. A framework of proposed interviews was established, and at each research site the following key local informants were approached for interviews:

the mayor
the area commander
the district commander
the editor of the local newspaper
two key senior sergeants
the safer community council chair and/or project worker
the sergeant in charge of the Intelligence Unit
an iwi (tribal) representative.

**Analysis of interview data**

My interview data was analysed using qualitative analytical techniques. All interviews were transcribed verbatim and analytical techniques applied. Qualitative data analysis describes a methodology for assessing unstructured data that cannot be subject to numerical analysis. Typically, such data will come from interviews, field notes, documents and focus groups (Richards, 2002). A starting point for analysis is considering themes that might be applied to the data. Overall themes were developed using the interpretational analysis Tesch (1990, p. 141) suggested. This analysis involved working from four sources to structure the research themes: the research question and sub-questions; the research instruments; the literature review, which incorporates concepts or categories used by authors in previous related studies; and the data itself. The overall methodology used to analyse the interview data combined approaches from Miles and Huberman (1994, p. 9) and Tesch (1990, p. 142) and applied the following procedure.

1. Get a sense of the whole by reading about 25–35% of the data and noting ideas and adding comments or reflections to the material.

2. Analyse the data systematically, paying attention to switches and transitions from one topic to the next and noting the topics not the content.
3. List all the topics and compare them. Rationalise the list into three groups: major topics, unique (even if rare) topics, and leftovers.

4. Review the raw data. Use the preliminary framework to reassess the data and validate, expand or reduce the topic list. Consider using subcategories.

5. Develop a complete coding of the data.

6. Focus on the content in each topic. Identify and summarise the content for each category, looking specifically for commonalities, uniqueness, confusions, patterns, themes, relationships, sequences, contradictions and missing information.

I commenced analysis of the qualitative interview data by using the categories identified in the literature review, research instrument and research questions. As my reading and analysis developed, I identified more categories from the data. The number of categories grew quickly during this period. However, this seemed to be part of a natural process of coming to terms with the data. As the thematic analysis developed, some combining and elimination of categories occurred, until a final set of thematic categories emerged and a final coding of all the data could be completed. Of particular interest were contrasts and comparisons between strong and weak uptake research sites and themes that addressed the research questions. This did not mean that novel or unexpected themes were discarded; in fact, unexpected material and themes provided the most useful illustrative and explanatory material (see Chapters 5, 6 and 7).

The approach used in this research was to frame more general questions within each broad category (organisational, environmental and individual) and
develop the interviews from that point. The research has been structured to encourage contrast and comparison between sites. The strength of this design was evident in the contrasts and comparisons being drawn from the interviews between the innovative and non-innovative sites. Some clear patterns emerged in the factors and themes were identified. Rich contextual and illustrative data emerged from the interviews.

**Conduct of interviews**

Thirty-six interviews were planned as part of the research, nine per research site. Of the 36 planned interviews, 88% (32) were completed as planned. Four interviews were not conducted after extended efforts were made to complete them. Two of the planned interviewees refused to be interviewed. The reasons for these refusals are explored in the results chapters. Two other interviewees actively avoided being interviewed. I contacted these interviewees on numerous occasions, but they actively avoided making arrangements to meet with me. Table 4.10 shows the outcome of efforts made to conduct planned interviews.

The impact of the four uncompleted interviews on the research was minimal. Interviews were completed with the iwi (tribal) representatives at Hihi and Mātātā. The two completed interviews with iwi representatives failed to reveal much useful information that was specific to the development of ILP innovation. The completed interviews provided background information on the development of local police and iwi relationships, but the information was generic in nature. Kaumātua (tribal elders) interviewed were not privy to information about the development of ILP and did not perceive changes in the nature of their relationship with police that could be linked to ILP development.
It is probable that had two further interviews with iwi representatives been conducted information of a similar character would have been revealed.

The failure to complete interviews with the mayor and editor of the local newspaper at Kea is somewhat more problematic. Both the mayor and editor may have been in positions to supply credible and useful information about the local development of ILP. Despite this problem, local police and the community worker interviewed were able to provide full accounts of the development of ILP and explanations for the reluctance of the mayor and editor to participate in the research process.

**Table 4.10: Interviews conducted at research sites**

<table>
<thead>
<tr>
<th>Interviews</th>
<th>Non-innovative sites</th>
<th>Innovative sites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kea</td>
<td>Hihi</td>
</tr>
<tr>
<td><strong>Police interviews</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District commander</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Area commander</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Key senior sergeant</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Key senior sergeant</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sergeant in charge of Intelligence Unit</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Non-police interviews</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mayor</td>
<td>Refused</td>
<td>✓</td>
</tr>
<tr>
<td>Editor of the local newspaper</td>
<td>Refused</td>
<td>✓</td>
</tr>
<tr>
<td>Community worker</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Table 4.1
<table>
<thead>
<tr>
<th>Role</th>
<th>Non-innovative sites</th>
<th>Innovative sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td>Kea</td>
<td>Takahē</td>
</tr>
<tr>
<td>Iwi (tribal) representative</td>
<td>Avoi ded</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Hihi</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Mātātā</td>
<td>✓</td>
</tr>
</tbody>
</table>

Most interviewees were self-selecting. In each area there was only one local mayor, district commander, area commander, sergeant in charge of the local Intelligence Unit, editor of the local newspaper, and community worker and, in most cases, one iwi representative who worked closely with police. The only research selection involved selecting from available senior sergeants. This limited selection was completed using a practical approach. At Takahē only two senior sergeants were available and both were interviewed. At Mātātā senior sergeants were interviewed based on availability and knowledge of local ILP development. One senior sergeant was interviewed because of availability and length of service at Mātātā. The other senior sergeant was selected because of availability and being a relatively recent arrival to the area, so it was thought the senior sergeant might have fresh perspectives or be in a position to compare and contrast with other sites. At Hihi and Kea selection was based on availability and role. Officers with roles that exposed them more to ILP were sought.

### 4.4.4 Conclusion
In this chapter I have presented my research methodology and explained how my research data were gathered. In the next three chapters I weave my
Intelligence-Led Policing in New Zealand

interview and survey results together to present my research findings. Each of the next three chapters thematically explores my organisational, environmental and individual level findings. In my final chapter I assess the practical and theoretical implications of my results. My research approach was designed to enable innovation uptake to be explored in depth and to elicit contrasts between strong and weak innovation uptake sites. My results yielded significant differences on key factors and my interview data contextualised and framed these results. I now present my findings.
Chapter 5: Organisational Factors

5.1 Introduction

The way police choose to organise themselves has enormous implications for the day-to-day behaviour of police officers and overall police effectiveness (Bayley, 2002; Mastrofski, 1998; National Research Council, 2004; Wilson, 1968). Organisational factors include the leadership style of police managers, management arrangements, local organisational culture and approaches to dealing with new technology. Organisational arrangements are particularly important in addressing innovation because innovation is largely realised by altering or manipulating organisational features. Changes in policy, procedure, structure, practice, training, leadership and management arrangements are the principal mechanisms used to take innovation from idea to actuality (National Research Council, 2004). This chapter focuses on how key organisational factors influence the uptake of intelligence-led policing (ILP) innovation in New Zealand. The direct influence of organisational factors is considered along with important interactions that shape the innovation process.

Whether directly, or through interactions organisational factors can support or inhibit innovation uptake. The implementation of ILP innovation poses specific organisational challenges. These include social, technical and information management challenges (Ratcliffe, 2001, 2002, 2004; Tilley, 2003b). The literature describes problems such as knowledge gaps between analysts and managers (Ratcliffe, 2004), lack of analysis and lack of high quality analysis (Townsley, Johnson & Pease, 2003), cultural divides between sworn and non-sworn staff, a failure to apply crime sciences to crime problems (Cope, 2004), and data quality and data flow problems (Tilley, 2003). The
ability of police managers in New Zealand to apply organisational solutions to overcome these challenges are likely to strongly influence the successful uptake of ILP.

While ILP poses specific organisational challenges, policing overall is beset by both pressure to innovate and resistance to reform. Pressure for innovation comes from evidence demonstrating how ineffective standard police practice is (Weisburd & Eck, 2004) and calls for a more business-like approach to meet demands for greater efficiency and effectiveness (James, 2003; National Research Council, 2004; Rosenbaum, 2007). The police response to calls for innovation and reform is often avoidance or resistance to change, reflecting the conservatism of police organisations (Finnane, 1999b; Maguire, 1997; Scott, 2003; Skolnick & Bayley, 1988). This convergence of factors highlights the need for a better understanding of how organisational factors influence innovation and interact with other factors to shape the innovation process (National Research Council, 2004).

The uptake of ILP in New Zealand presents an opportunity to review how police areas within a national police agency react to a strategic innovation (National Research Council, 2004). This is the first of three chapters that present my research findings. In this chapter I merge results from my interviews with key stakeholders and the results of my officer survey to investigate the role of organisational factors on the capacity of the New Zealand Police (NZP) to adopt ILP. I explore both the discrete influence of key organisational factors and identify key interactions that were important in influencing the innovation process. The first critical factor I explore is leadership.
5.2 Leadership

Over the past decade research has highlighted the importance of police leadership in shaping both officer behaviour and police organisational behaviour (National Research Council, 2004). Leaders can, for example, significantly reduce the incidence of unlawful conduct by officers by providing unequivocal leadership on what behaviours will and will not be tolerated (National Research Council, 2004; Skolnick & Fyfe, 1993). Unfortunately, however, the research literature on police leadership is limited in explicating the role of leadership in fostering innovation (National Research Council, 2004). One approach to addressing this gap is to apply the lessons from the literature that has explored the broad influence of leadership. An important approach from this literature considers transactional and transformational leadership (Bass & Avolio, 1994). This leadership model demonstrates usefulness in many organisational environments and its utility in supporting innovation and change (Antonakis, Avolio, & Sivasubramaniam, 2003; Bass & Avolio, 1994; Hoyt & Blascovich, 2003). Transactional leaders rely on authority and manage by exception; this style of leadership emphasises the transaction that takes place between leaders and followers (Bass & Avolio, 1994; Tichy & Ulrich, 1989). Transformational leaders stimulate, motivate or inspire staff to contribute desired behaviours (Bass & Avolio, 1994; Tichy & Ulrich, 1989). Transformational leaders can also act as mentors or coaches, paying attention to the individual within the organisation (Bass & Avolio, 1994). The relationship between transactional and transformational leadership is an important one for paramilitary organisations such as police agencies that might be expected to reply more heavily on transactional leadership behaviours.
In this section I present my research results that assess the influence of leadership on the uptake of innovation in New Zealand. First, I present my survey results exploring officer views on the prevalence of transactional and transformational leadership at my research sites. I then merge my survey findings with the results of my interviews with key respondents. This section addresses the following questions. How important was leadership to the uptake of innovation in New Zealand? Were there any differences in management approaches to leadership at my research sites? To what extent did different approaches to leadership influence officers?

My research tested officer views on the strength of transactional and transformational leadership at my research sites. My survey explored officer views on dimensions of transactional leadership, including supervisor focus and awareness, task clarity and finishing tasks. I also explored officer views on dimensions of transformational leadership, including the presence of inspirational leaders, sense of mission, working together and team confidence. I use these results to explore the extent to which leadership contributed to the adoption of ILP practices within the four police operational areas in my study sample. The results of MANOVA tests, which examine the relationship between officers’ experience of leadership and whether or not they worked at a strong or weak uptake site, are presented in Tables 5.1 and 5.2.
Table 5.1: Transactional leadership

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th></th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

F = 3.21  df = 3  p < 0.024  Partial Eta Squared = .033;  *= p < 0.05  ns = not significant

As Table 5.1 shows, no statistically significant differences emerged between officers stationed at any of my research sites. This suggests that officers across all my research sites were experiencing similar levels of transactional leadership.

Table 5.2: Transformational leadership

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
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<td>ns</td>
</tr>
<tr>
<td>11.44 2</td>
<td>ns</td>
<td>x</td>
<td>.001*</td>
<td>ns</td>
</tr>
<tr>
<td>10.13 4</td>
<td>.000*</td>
<td>.001*</td>
<td>x</td>
<td>.014</td>
</tr>
<tr>
<td>11.15 3</td>
<td>ns</td>
<td>ns</td>
<td>.014</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 6.80  df = 3  p < 0.000  Partial Eta Squared = .067;  *= p < 0.05  ns = not significant

Table 5.2 shows the results of my survey evaluating transformational leadership. As Table 5.2 shows, officers at strong uptake sites Mātātā (M = 11.56, p = .000) and Takahē (M = 11.44, p = .001) viewed their local police areas as having higher levels of transformational leadership than officers at the weak uptake site Hihi (M = 10.13). Officers at weak uptake site Kea (M = 11.15, p = .014) also viewed their local police area as having higher levels of transformational leadership than officers at weak uptake site Hihi (M = 10.13).
I hypothesised that officers at strong uptake sites would experience less transactional leadership than officers at weak uptake sites. I hypothesised that the uptake of innovation would be associated with greater transformational leadership and that this might lead to a reduction in officer experience of transactional leadership. I proposed that at strong uptake sites officers might experience less use of authority and less transactional exchanges with managers. Overall, my reasoning was not supported by my officer survey findings. My results provided partial support with officers at strong uptake sites Mātātā and Takahē reporting much higher levels of transformational leadership than colleagues at weak uptake site Hihi. My reasoning was confounded by the finding that officers at Kea also reported experiencing significantly more transformational leadership than colleagues at weak uptake site Hihi. I now explore leadership at my research sites in more depth, in particular by drawing on my interviews with key respondents.

Key interview respondents reported clear differences in the focus of transactional leadership at strong and weak uptake sites. At strong uptake sites transactional leadership encouraged officers to perform ILP tasks. When managers used authority they focused on ILP tasks and behaviours. Typical was the approach of the area commander at Takahē. The commander emphasised informality but insisted on “accountability”. The commander noted, “I run a very informal um, type ah, organisation but, but with accountability so those people are held accountable for what they’ve agreed at the beginning of the year”. The commander emphasised motivating staff and encouraging officer participation, but balanced this with a transactional focus on performance of key ILP tasks. In a similar way, managers at Mātātā focused on officer performance of ILP behaviours. A key senior sergeant respondent from Mātātā
describes how transactional leadership behaviours were used to encourage ILP behaviour. Managers set challenging targets and clear expectations were communicated about delivering results.

Key senior sergeant 2 Mātātā:
Um, it’s kind of um, it’s, it’s the business as usual really um, ah, there’s, there’s two sides to it. I mean um, we ah, we set um, pretty um, challenging ah, requirements ah, around bail checks and um, um, some of our road safety um, initiatives and um, um, around our DPR22 ah, taskings and things like that. Um, we expect results there and um, but we also expect initiative and ah, and we certainly get that …

Key senior sergeant 1 Mātātā:
This particular problem has to be fixed this week and that is your tasking and project and when we meet here next Wednesday I want to know that it’s done and you can tell me that it’s done but I’ll also be monitoring that through Intel to make sure that what you're telling me is happening, is actually happening at the street level, if you don’t hold, if you don’t hold people accountable like that you're talking into the wind. They leave the office and all of a sudden something else is more important …

Managers at strong uptake sites engaged in transactional leadership narrowly to support officer uptake of ILP behaviours. This approach by managers was consistent at both strong uptake sites. Transactional leadership was used to support the uptake of ILP behaviours by officers. If transformational approaches such as encouragement and motivation failed, managers would emphasise the transaction and use their authority.

At weak uptake sites key respondents pointed to either much more diffused transactional leadership or a broad laissez-faire approach to leadership. At Kea, for example, officers experienced transactional leadership in a haphazard way. A key senior sergeant respondent describes an unpredictable organisational environment with a mix of commands and more causal directives

22 DPR – directed patrol reports.
flowing down to him. The senior sergeant describes being unsure as to what he 
would strike next.

*Key senior sergeant 2 Kea:*

... some stuff comes to you and it’s um you know, bang, smack straight up 
and down, there it is, like it’s um, yeah sometimes it’s, yeah I s’pose it’s a 
mix, a mix like everything, sometimes it’s more casual and then other times 
if, if I s’pose it depends where the pressure is being brought to bear from 
further above, sometimes they are matters that don’t, um avail themselves 
to any casualness or anything like that and it needs to be actioned straight 
away and you're on deadlines and directions and things but other times it’s 
more casual ... 

At Hihi a key respondent noted an overall absence of leadership. The 
sergeant in charge of the Intelligence Unit at Kea had recently worked at 
Takahē and was able to compare leadership approaches between research 
sites Takahē and Hihi. The sergeant describes how managers at Takahē 
participated in the intelligence process and communicated clear expectations. 
Sergeants and senior sergeants were expected to take a leadership role in 
support of ILP uptake. At Hihi there was no clear direction from the top, and 
front-line officers and supervisors did their best to “try and [e]ffect change” 
(sergeant in charge Intelligence Unit Hihi), to develop ILP in the absence of 
clear direction and support from managers. The sergeant describes the 
situation.

*Sergeant in charge Intelligence Unit Hihi:*

Ah, what I’ve, my perception is that there isn’t a lot of leadership in terms of 
um intel-led\(^{23}\) policing, I think it’s a, it’s used just purely as a buzzword, ah 
there’s no actual, ah, meaning to it, there’s no focus, urgency or leadership, 
whereas in the Kings District\(^{24}\) it was all led, you had to lead it, you had to 
do it by the managers and it all filtered through, whereas here it’s actually

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\(^{23}\) Intel – intelligence.  
\(^{24}\) Pseudonym
coming up from the bottom, Intel actually leading it up from the bottom to try and effect change and reduce crime, which just isn’t actually working here.

Given the nature of police organisations it is reasonable to expect evidence of transactional leadership behaviours at my research sites. My research shows that transactional behaviours at strong uptake sites were narrowly focused on behaviours that were important to the success of ILP. Expected behaviours were specific, clear and logically linked to ILP. At weak uptake sites respondents reported two different experiences of transactional leadership. At Kea, transactional behaviour was haphazard and key respondents reported that managers were uncertain as to what was important and what was not. At Hihi, key respondents stated that leadership overall was weak and the approach to ILP was laissez-faire.

I now turn from transactional leadership to the role of transformational leadership in the uptake of ILP innovation in New Zealand. I hypothesised that officers from strong uptake sites would report higher levels of transformational leadership than colleagues at weak uptake sites. Figure 5.1 presents my research findings diagrammatically. Figure 5.1 maps strong and weak uptake sites against reported levels of transformational leadership. My hypothesis was partially confirmed by my results with both strong uptake sites reporting higher levels of transformational leadership than weak uptake site Hihi. However, like my analysis of transformational leadership, my results were confounded by my finding that officers at Kea also reported significantly higher levels of transformational leadership than colleagues stationed at Hihi. To explore this finding further I reviewed the means and standard deviations for the different categories of officers at Kea. I checked and compared the means to see if any
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might be significantly different from each other. I conducted independent sample t-tests for any groups that appeared to be significantly different from one another. Table 5.3 presents the results of this analysis.

**Figure 5.1:** Innovation uptake and transformational leadership

![Innovation uptake and transformational leadership diagram]

**Table 5.3:** Kea t-test results – officer categories – transformational leadership

<table>
<thead>
<tr>
<th>Category</th>
<th>Number in sample</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Degree of freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>56</td>
<td>10.89</td>
<td>1.94</td>
<td>74</td>
<td>.013</td>
</tr>
<tr>
<td>Māori and Pacific</td>
<td>20</td>
<td>12.18</td>
<td>1.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-supervisory</td>
<td>67</td>
<td>11.34</td>
<td>1.92</td>
<td>78</td>
<td>.044</td>
</tr>
<tr>
<td>Supervisory</td>
<td>13</td>
<td>10.15</td>
<td>1.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 5.3, shows Māori and Pacific officers (M = 12.18, p = .013) reported significantly higher levels of transformational leadership at Kea than Caucasian officers (M = 10.89). Supervisory officers (M = 10.15, p = .044)
reported significantly lower levels of transformational leadership than non-supervisory officers (M = 11.34). To explore this difference further, I tested reported levels of transformational leadership for supervisory and non-supervisory officers at my other three research sites. There were no statistically significant differences between reported levels of transformational leadership between supervisory and non-supervisory officers at any of my other research sites. This difference was unique to Kea.

The finding that non-supervisory officers (front-line constables and detectives) report higher levels of transformational leadership than supervisory officers (sergeants) from Kea demonstrates a high-level innovation leadership vacuum at Kea; that is, Kea suffered from major leadership problems at the middle manager level, senior sergeant and inspector ranks. These are the ranks from which supervisors at Kea should be receiving most of their transformational leadership; they report they were not. Transformational leadership was evident at the sergeant level but was being stymied in the middle ranks. This finding is very strongly supported by my interviews with key respondents.

At Kea the local area commander was motivated to lead change but was thwarted by failure to develop a leadership coalition within Kea and this failure was important in allowing resistance to change to emerge. There was effectively a leadership split within the area with another key leader actively opposing ILP. My interviews with key respondents demonstrated that resistance was active and the features of the leadership struggle with the area commander were prominent. The area commander describes what happened.
Area commander Kea:

Yeah, we started about three years, it would have been three years ago and um first six months was um it was diabolical and um we got ah to a point where um yeah, it was either myself and the [position], just, we were just full on battle. Um the only thing that sort of saved the whole [I] think was um I was area commander and he was [position] and that was probably the only difference. We both had exactly the same attitudes of neither of us are going to back down, you know it’s quite sad.

The inability of the area commander at Kea to establish a leadership coalition in the middle ranks at Kea fostered resistance to change and seriously undermined the ability of the area to adopt ILP innovation. The senior sergeant leading the active resistance was interviewed as part of my research and was very frank about his personal resistance to change. The senior sergeant linked his personal resistance to poor knowledge of ILP. He claimed he had never received training in ILP and argued that ILP conflicted with his broad experience as a detective. The senior sergeant was a senior manager in the Criminal Investigation Branch (CIB). Specialists units such as the CIB are noted in the literature as a likely source of resistance to change (Skogan, 2008).

Key senior sergeant 1 Kea:

Resistance to change, I’ve got to put my hand up here and say that I was ah, I was resistant to it, one, because I didn’t understand it, I’d never been trained, crime and crash to me and of course pretty much a, a senior detective, I’ve served in every front-line squad from [location] through to [location] in the CIB, ah, particularly [location]l and ah, to me I just couldn’t see the merit in it, I just couldn’t see why we were doing it …

My research demonstrates how tensions around leadership were a critical issue at Kea. The area commander was trying to implement ILP but was undermined by several factors. The commander failed to develop a leadership coalition within his area. In particular, he was actively opposed by a key leader who championed resistance to change. My research shows that the area
commander was getting some support for ILP at the front-line supervisory level. This is shown by the presence of transformational leadership at the sergeant level in Kea. However, unresolved tensions at the middle management level undermined the area’s capacity to reform and to drive ILP innovation.

These results demonstrate the importance of leadership in supporting police innovation uptake. An essential component of ILP innovation is achieving a critical threshold of transformational leadership. As a minimum there must be sufficient leaders at the front-line supervisory and middle management levels supporting change (in the New Zealand context this is the senior sergeant level). The absence of transformational leadership in the middle ranks seriously undermined the uptake of innovation.

In contrast to managers at weak uptakes sites, managers at strong uptake sites were enthusiastic about crime reduction, ILP and innovation more broadly. Leadership, particularly transformational leadership, was central to efforts supporting ILP uptake. Managers developed leadership coalitions that leaders both inside and outside the organisation supported. At Mātātā, for example, a key senior sergeant reported a broad community leadership network consisting of the local District Court judge, the local prison manager, the local Safer Community project worker, the local government policy manager and police all working closely together to achieve crime reduction goals (key senior sergeant 1 Mātātā).

Transformational leadership was a prominent feature at strong uptake sites. Managers focused on inspiring officers and developing officer confidence about ILP and their role in contributing to ILP. The area commander at Mātātā describes how he engaged with his officers. The commander sought officer
participation in the intelligence-gathering process by tapping into officer craft or street knowledge (Sklansky & Marks, 2008) and characterised his role as that of a “coach”. The commander was consistent in his efforts to build confidence and to encourage local officers to understand that they “have the biggest impact on crime”. The commander encouraged his officers by “celebrating” success when crime reduction results were achieved.

_Area commander Mātātā:_

Um, it’s about, it was about talking about the belief that we’re people made the that have the biggest impact on crime. So if we had good numbers we celebrated them, if we didn’t have good numbers we asked the questions, you know, just like the coach does at half time if you’ve lost the first half, you know. What are we doing wrong here, what are we missing? Someone in this room knows why theft ex’s have gone through the roof here, or wherever it is and someone in this, at you know, at the station meeting has the answers, someone has spoken to the kid that’s done it or has spoken to them in the past and self, again it came back to that self-belief thing.

Efforts to build bottom-up support for ILP, to engender confidence in ILP and celebrate the successes of ILP were pivotal to the uptake of ILP innovation. Celebration of crime reduction was important. It signalled the effectiveness of ILP to officers and reinforced the merits of ILP. Key managers at strong uptake sites built support for ILP one officer at a time through encouragement and coaching.

Like the area commander at Mātātā, the area commander at strong uptake site Takahē was a transformational leader. The commander pointed to the differences in leadership style within his own district to illustrate his approach. The commander suggested that one of the reasons for the success of ILP at Takahē was his leadership style. He described other areas as being more

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25 Theft ex – theft ex-car (theft from a motor vehicle).
“autocratically led” with managers “dictating to staff”. In the commander’s view the move to ILP required engaging with officers, involving officers in the development of ILP and not pursuing ILP by directive.

*Area commander Takahē:*

B: Ah, I say one other area is, is similar. Ah, the other two I would say are more autocratically led.

D\textsuperscript{26}: Yeah?

B: Um, and the results sort of indicate that, that, that doesn’t work. Um, they, they don’t seem to involve the staff in, in any of the ah, initiatives or strategies that they’re doing and, and that, and they’re dictated to the staff and um, I think that, that probably um, well it certainly doesn’t turn people around to an intel-led\textsuperscript{27} sort of type philosophy ah, all, all it means is that you’re back to where you were and you’re ordering people to do things and ah, if you have to order them to do things ah, you’ll certainly get them to do it but you won’t get any quality with it.

There is considerable evidence both from my interviews with key respondents and my officer survey, demonstrating the pivotal role transformational leadership played in supporting ILP innovation. Managers at strong uptake sites worked hard to inspire officers and stimulate interest and enthusiasm about ILP. They focused on building confidence and winning officer “commitment over compliance” (area commander Mātātā). There were also efforts to encourage officer participation in the development of ILP. These kinds of behaviours are typical of transformational leaders (Bass & Avolio, 1994). At weak uptake sites transformational leadership was absent or lacked critical mass among key middle ranks. Transformational leadership stood out as a key factor supporting the uptake of ILP innovation.

\textsuperscript{26} D – the interviewer.

\textsuperscript{27} Intel – intelligence.
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My research illustrates the importance of leadership to the uptake of innovation in New Zealand. At strong uptake sites, focused transactional leadership and high levels of transformational leadership were evident. At weak uptake sites, transactional leadership was diffused and transformational leadership was absent or missing at critical levels in the rank structure. This combination of factors was very important to the uptake of innovation in New Zealand and is both consistent with and adds to existing police research (Ford, 2002; Long, 2003; National Research Council, 2004). Managers at strong uptake sites used transformational leadership to encourage, motivate and inspire officers to support ILP. This approach represents classic transformational leadership (Bass & Avolio, 1994; Tichy & Ulrich, 1989). Key respondents also pointed to low transformational leadership at weak uptake site Hihi and indicated that, while transformational leadership was present at Kea, leadership at Kea was highly fractionalised and did not support the uptake of ILP. My results point to the need for both critical mass and consistent transformational leadership across all levels of the organisation, if innovation is to succeed. Transformational leadership played a vital role in the ILP innovation life cycle in New Zealand. As ILP moved from the stage of assessment and evaluation to implementation, transformational leadership was critical to the successful innovation of ILP.

5.3 Formalisation and management style

Formalisation describes the density of the administrative apparatus within an organisation and includes the intensity of features such as rule making, procedures and overall bureaucracy (Maguire, 1997). The formalisation of police organisations has been seen as a barrier to police innovation, particularly
reforms such as community-oriented policing and problem-oriented policing (Goldstein, 1990; Kelling & Moore, 1988; Moore & Stephens, 1992; Skolnick & Bayley, 1988), with reduced formalisation allowing police greater freedom to develop innovative solutions to the challenges of day-to-day policing (Kelling & Moore, 1988; Maguire, 2003; Moore & Stephens, 1992). Management style describes the approach managers take in their day-to-day interactions with staff. Management style assesses the extent to which staff believe they can participate in the management process, and research suggests a more participative management style is associated with successful police innovation (Beck & Wilson, 1997; Dick & Metcalfe, 2001; Eck & Spelman, 1987; Goldstein, 1990; Lurigo & Skogan, 1994; Sklansky & Marks, 2008; Toch, 2008; Wood, Fleming, & Marks, 2008).

In this section I explore the influence of management style and formalisation on the uptake of ILP innovation. I test the views of officers on formalisation and management style at my research sites. The following questions are evaluated. Were there any differences in officers' views on formalisation and management style at my research site? Were there any differences in the approach of managers to formalisation and management style at my research sites? How important is formalisation and management style to the uptake of innovation in New Zealand?

My research tested officer views on the level of formalisation within their local police area across my four research sites in New Zealand. My survey explored officer views on the extent to which they ignored rules and felt able to take independent action, the distance between them and the area commander, whether they were their own boss and how much time they spent on
administrative matters. The results of MANOVA tests, which examined the relationship between officers’ experience of formalisation and whether or not they worked at a strong or weak uptake site, are presented in Table 5.4.

**Table 5.4: Formalisation**

<table>
<thead>
<tr>
<th>Mean Rank</th>
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<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
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<td>ns</td>
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</tr>
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<td>9.49 4</td>
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<td>10.44 2</td>
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<tr>
<td>10.73 1</td>
<td>.004*</td>
<td>.000*</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 8.23  df = 3  p < 0.000  Partial Eta Squared = .081;  * = p < 0.05  ns = not significant

As Table 5.4 shows, officers at strong uptake sites Mātātā (M = 9.73, p = .004) and Takahē (M = 9.49, p = .000) viewed their local police areas as less formal than officers at weak uptake site Kea (M = 10.73). Officers at strong uptake site Takahē (M = 9.49) also viewed their police area as less formal than weak uptake site Hihi (M = 10.44, p = .014).

These findings demonstrate important differences in officer perceptions of formalisation at my research sites. Officers at weak uptake sites perceived their local area to be more formal than officers at strong uptake sites. My results demonstrate that officers at strong uptake sites felt more comfortable taking independent action, felt closer to their managers and spent less time on administrative matters than officers at weak uptake sites.

My research also tested officer views on local management style across my four research sites. My survey explored officer views on the influence they had over their job, communication with management, participation in problem
solving at work and team work. Table 5.5 presents the results from my survey using the MANOVA test.

**Table 5.5: Management style**

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā Mean</th>
<th>Takahē Mean</th>
<th>Hihi Mean</th>
<th>Kea Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.74</td>
<td>13.53</td>
<td>13.00</td>
<td>13.07</td>
<td></td>
</tr>
<tr>
<td>Mātātā</td>
<td>x</td>
<td>ns</td>
<td>.045</td>
<td>.049</td>
</tr>
<tr>
<td>Takahē</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Hihi</td>
<td>.045</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>Kea</td>
<td>.049</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

\[ F = 3.72 \quad df = 3 \quad p < 0.012 \quad \text{Partial Eta Squared} = .038; \quad * = p < 0.05 \quad \text{ns} = \text{not significant} \]

As Table 5.5 shows, officers at strong uptake site Mātātā (M = 13.74) viewed their local police area as having a significantly more open management style than officers at weak uptake sites Hihi (M = 13.00, p = .045) and Kea (M = 13.07, p = .049). There were no other statistically significant differences. I now integrate my survey and interview results to evaluate the role of formalisation and management style in supporting ILP uptake.

My officer survey findings demonstrate that officers at strong uptake sites viewed their local police areas as less formal than officers at weak uptake sites viewed their areas. My results also show that managers engaged officers at strong uptake sites in a more participative way than managers at weak uptake sites. Overall, these results support a growing body of research evidence highlighting the importance of both encouraging participation by officers in the innovation or reform process and reducing formalisation to enable open comment and full participation by officers (Beck & Wilson, 1997; Dick & Metcalfe, 2001; Eck & Spelman, 1987; Goldstein, 1990; Lurigo & Skogan, 1994; Sklansky & Marks, 2008; Toch, 2008; Wood, Fleming, & Marks, 2008). Officers
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at strong uptake sites believed they had more influence over their job, could contribute to solving problems more at work and were part of a stronger team environment.

My interviews with key respondents supported my officer survey findings that both low formalisation and a more participative management style were evident at strong uptake sites. Strong uptake sites encouraged innovations that reduced the burden of the administrative apparatus on officers. There was no evidence of similar efforts at weak uptake sites. The sergeant in charge of the Intelligence Unit at Mātātā for example, describes how the efforts of a junior officer to reduce officer paperwork were encouraged.

*Sergeant in charge Intelligence Unit Mātātā:*

Well we’ve always got new people coming here with new ideas and, and I mean, that include, includes a recruit coming up, [name] probably the best example of this ... she said some of these forms are crap, so she re-designed the forms. That was cool, she did that within the first six months of getting out and she said wouldn’t it be helpful if we had like EBA forms all in a pack.

D: Yeah?  

P: Sort them all into a sleeve and we had the sleeves. Um, so yeah, that, she wasn’t jumped on cause you’re new you don’t know what you’re talking about would, cool that makes sense go and do it. Since then she’s put together a DNA book, which tells you everything you need to know about DNA.

Managers at strong uptake sites encouraged efforts to reduce the administrative burden on local officers. This signalled to officers that managers would receive their ideas for improvement positively.

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28 EBA – excess breath alcohol; EBA forms – the paperwork for processing drink drivers.
29 D – the interviewer.
30 DNA – deoxyribonucleic acid; DNA book – the forms officers use to take DNA samples from offenders.
Managers at strong uptake sites also championed an informal organisational environment that encouraged officer participation. The area commander at Takahē was an enthusiastic proponent of informality and eagerly sought the contribution and ideas of local officers in developing ILP. The commander’s view was that for ILP to be successful everybody’s “contribution” had to be “valued”. The commander strongly supported an informal, participative management style. However, the commander insisted on accountability for agreed actions. The commander’s approach was “very informal” but “with accountability”.

_Area commander Takahē:_

I think the days of the paramilitary organisation are gone ah, which I think is good. Um, I don’t think that any one person has all the ideas and I don’t think anybody by share weight of rank means that they have got all of the ideas and ah, I think that if you really want to incorporate intel-led policing ah, you’ve, you’ve got to create an environment where everybody’s um, contribution is valued or, or ah, ah, is heard as well. So I run a very informal um, type arrangement ah, I don’t like being called Sir for instance, I, I prefer to be called Bruce. Um, but that’s ah, and I run a, I have an open-door policy as well, which, which creates its problems in itself because you end up a, spending an awful lot of time talking and ah, and sometimes you get a little bit frustrated that you don’t have, you don’t get on to your day-to-day sort of stuff um, but you, you just can’t measure how, how valuable that time is when you’re doing that ah, speaking with staff. Hmm.

D: Hmm.

B: Hmm. So yes, I would say I run a very informal um, type ah, organisation but, but with accountability so those people are held accountable for what they’ve agreed at the beginning of the year.

As the quotation above demonstrates, low levels of formalisation were associated with the uptake of innovation at my research sites. Not only were managers willing to support efforts to reduce the administrative burden on

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31 Intel – intelligence.
32 Bruce is a pseudonym.
officers but key managers were enthusiastic about reducing formality. While informality was encouraged, the importance of key ILP-related accountabilities was maintained. These results support the existing literature, which associates reduced formalisation with innovation uptake (Kelling & Moore, 1988; Moore & Stephens, 1992; Skolnick & Bayley, 1988; Goldstein, 1990).

The attributes of managers (such as cosmopolitanism, education, age, experience and attitudes; see Rogers, 2003) are strongly associated with innovation. My research highlights how important the personal attributes of managers are to the uptake of ILP innovation in New Zealand. Interpersonal people skills, communication skills, resilience, clarity of purpose and leadership stand out as important to the innovation process. Interviews with key respondents at strong uptake sites linked the personal qualities of area commanders to factors supporting innovation uptake. For example, the district commander at Takahē strongly linked the local management style at Takahē to the area commander’s personal qualities. The district commander described the area commander as a “people person” and being “prepared to invest in people”. Importantly, the area commander was also described as “resilient in what he believes” and “very clear about what he wants”.

_District commander Takahē:_

Yeah um, Bruce’s got different management style to me. He’s um, he’s confident um, he’s a people person, I’d call him a smoother um, but, but he’s not a walk over, he’s quite resilient in what he believes in, but he’s a good listener.

D: Yeah?.

R: Um, he encourages, he sees the best in people rather than the worst. He’s prepared to invest in people that could be, rather than dismiss them. Um, he takes an interest, he’s got a good manner. He’s very clear about what he wants, he’s a good communicator.
The district commander links the area commander’s personal qualities to the informal management style adopted at Takahē. The linkage of an informal management style to the personal qualities of the local area commander was a consistent theme at strong uptake sites and was important to the uptake of ILP innovation in New Zealand. Both the personal qualities (Interpersonal people skills, communication skills, resilience, clarity of purpose and leadership) and the commitment to an open and participative management style were similar.

At weak uptake sites different management styles were in play. The area commander at Kea was frank about his management style. The commander’s style was focused on command and delegation. Once decisions were taken, he delegated tasks to his senior sergeants to implement the decisions. This left staff thinking the commander could be “autocratic at times”.

*Area commander Kea:*

Um, I’m hands on, um, I would say, um, I like to discuss things with, with my staff, ah, they may think I’m autocratic at times because I tell them this is what I want done. Um, pretty much I leave, leave my seniors to do what I’ve asked them to do and I trust them to do, to do that, um most of them.

While management was more formal and autocratic at Kea, at Hihi the management style like the leadership style was laissez-faire. The sergeant in charge of the Intelligence Unit described management as “soft” and “ineffective”. The sergeant compared and contrasted more challenging and motivating management he had experienced at other locations. Managers at Hihi failed to provide clarity about what was expected. The sergeant explains.

*Sergeant in charge Intelligence Unit Hihi:*

H: I would say that we have got a very ah soft, I guess at management level he is, um quite soft, I have been exposed to a lot of good role models, … so he was good, he was a real focus, real in your face, 100% but that was a motivating kind of feeling that you got from him, … ineffective I think is the
key word for the current, um, area commander here. Um, micro-managing would be another issue he has got here, ah but very soft, you can go to him and bend him around things, he won’t ah I, I know that being, being a manager you have got to give and take sometimes but you’ve still got to be firm like what you want to achieve and I don’t see that here.

The most consistent feature of management style at the weak uptake sites was the absence of participatory management. Officers were either told what to do or were given vague instructions. This absence contributed to weak uptake sites becoming effectively “stuck” at an early stage of the innovation life cycle, unable to move forward and fully implement ILP. At weak uptake sites a consistent management style was not evident, with one style being more formal, non-participatory and autocratic and the other non-participatory and passive.

In summary, NZP managers at strong uptake sites reduced formality and encouraged practices that reduced the administrative burden on officers. Managers engaged with officers as individuals and made a point of seeking officer input to the development of ILP. The informal participative management style was linked to the personal qualities of managers such as interpersonal people skills, communication skills, resilience, clarity of purpose and leadership. Officers were given the opportunity to participate and contribute as ILP developed. These efforts established an environment that was less formal than that seen at weak uptake sites. An important adjunct was the balance maintained between informality and accountability. Key managers never lost sight of the importance of crime reduction goals. While Informality and reducing the administrative burden were positive strategies managers deliberately undertook to support the local development of ILP. Informality and participative management were important features of ILP innovation uptake in New Zealand and clearly made an important contribution to ILP uptake.
5.4 Management of change

Management of change is an umbrella term that describes managers’ deliberate efforts to facilitate the introduction of an innovation or change (Argyris, 1989; Leavitt, 1989; Young, Charns, & Shortell, 2001). Advice on managing change comes from the business literature and is prolific (Demeanor, 1991; Dunphy, 1996; Ford, 2002; Kotter, 1995; Lewin, 1989; Schneider, 2003; Senge, 1990; Senior, 1999; Thomas, 2001; Webb & Cleary, 1994). Approaches recommended by the voluminous change management literature has been criticised for being simplistic, formulaic, lacking an empirical evidence base and having a high failure rate (Todnam, 2005).

In spite of these difficulties, the extent to which deliberate planned efforts are made to facilitate the introduction of ILP is likely to influence innovation uptake. While Todnam (2005) reports a 70% failure rate for formal change management efforts, this still indicates that 30% of change management efforts are effective. Case studies of police change management also demonstrate that effective change management can positively influence the uptake of innovation (Eck & Spelman, 1987; Ford, 2002; Moore et al., 1999; Skogan & Hartnett, 1997). Moore et al. (1999) for example, suggest that strategies such as using demonstration projects and creating organisational heroes can support innovative change.

In this section I explore the influence of change management on the uptake of innovation in New Zealand. I test officer views on the effectiveness of change management within their local police area. I address the following questions. How important was change management to uptake of innovation in New Zealand? Were there any differences in officer perceptions of change
management at my research sites? Where there any differences in the approach of managers to change management at my research sites?

My research tested officer views on local change management across my four police research sites in New Zealand. My officer survey explored officer views on how well new initiatives were managed, the use of plans, how well informed officers were about change and how appropriate the pace of change was. Table 5.6 presents the results from my survey after MANOVA tests.

**Table 5.6: Management of change**

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
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<td>ns</td>
<td>.000*</td>
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<tr>
<td>9.66</td>
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<td>ns</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>8.98</td>
<td>4</td>
<td>.000*</td>
<td>.002*</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 9.90 df = 3 p < 0.000 Partial Eta Squared = .095; * = p < 0.05 ns = not significant

As Table 5.6 shows, officers at strong uptake sites Mātātā (M = 10.49, p = .000) and Takahē (M = 9.99, p = .002) viewed their local police area as managing change significantly better than officers stationed at weak uptake site Kea (M = 8.98). No other statistically significant differences were reported.

I hypothesised that better change management would be associated with strong ILP uptake. This hypothesis was supported by my officer survey findings. Both strong uptake sites reported much stronger change management than weak uptake site Kea.

My interviews with key respondents bolstered my survey findings, linking effective change management with strong innovation uptake. Managers at strong uptake sites were both highly motivated to implement change effectively.
and experienced in implementing change. Evidence presented in this chapter illustrates the willingness of managers at strong uptake sites to take on challenging crime reduction goals. This superordinate commitment to crime reduction motivated managers to undertake ILP-related innovation as well as secondary innovations seen as necessary to achieve crime reduction. The crime reduction orientation of managers also motivated them to pursue effective change management strategies.

The district commander at Takahē described why he was pursuing innovation so strongly. The commander linked innovation to a personal sense of mission. The commander was committed to improvement “not just because we want to but because we have to”. The commander was highly motivated to “deliver results” and the commander led broad ongoing innovation to achieve that goal. Management of change was important for effective continual improvement. The commander explains.

District commander Takahē:
This is about change and about continuing improvement to say we can do better. Not just because we want to but because we have to. ‘Cause that’s, what I think what we’re paid to do. We’re paid to deliver results.

This approach was strongly supported at Takahē. The area commander at Takahē describes his approach to managing change. Changes were managed thoughtfully, with a district-wide approach evident. ILP change management was achieved using strategies such as educating officers about ILP and related topics such as crime sciences, seeking officer contribution to the development of ILP through workshops, and using experts to advise on process and practice. Other factors described in this chapter such as transformational leadership,
strong goal orientation and an informal participative management style also supported these specific strategies. The area commander explains.

_**Area commander Takahē:**_

And ah, and he embarked on a, on, on a sort of a programme of um, try, you know trying to influence people and he brought in a lot of ah, training he organised a number of workshops, he brought in some experts and things like that to try and um, ah get them to think of around um, the, the crime sciences ah, ah, the value of intel-led policing, the value of doing the right things at the right places at the right time.

D: Hmm.

R: The value of quality information to be able to act um, and ah, and making a difference ah, and reducing crime ah, with the ultimate aim. So there’d been a hell of a lot of work done ah, I think in um, in leadership and stuff like that to try and um, to try and bring that in …

At strong uptake sites officers were exposed to deliberate change management strategies focused on ILP. These strategies created a receptive environment for ILP. Change was managed by using workshops to educate staff and encourage participation, formal training and engagement with and learning from experts. Key leadership behaviours, an informal participative local environment and a focus on ambitious crime reduction goals underpinned this approach. At strong uptake sites deliberate and well-executed change management approaches supported the uptake of ILP.

In contrast, change management at weak uptake sites was poorly executed and fostered resistance to change. ILP innovation was associated with poorly consulted and executed restructuring. At Kea, respondents expressed frustration with changes and described token consultation and poor

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33 Intel – intelligence.
implementation. A key senior sergeant from Kea explained how change management practices had left him feeling bitter.

Key senior sergeant 2 Kea:
And I still wonder why um you know, like with, and that frustrated me, I s’pose it was because when it came, when it came in up here and like I say it was associated with the restructuring because that’s what it seemed to be and we just seemed to be doing shit for the sake of shit and, and, that and I mean they were leading that, the top management were leading that and the frustration of ah of having that um and because there were changes, there was change made up here, what was it, there was something in here, I can’t remember what it was, there was a couple of things here where the processes being used to make change weren’t being followed properly, um and then decisions, you’d be aware we that decisions had been made and then they’d go through a consultation process to um to make the decision that they had already made.

D: Um.

R: And that sort of thing just undermined when it happened, that was part of my bitterness where you come out with the restructuring you know. That to me was just a waste of time.

The level of frustration being expressed by a key manager at Kea illustrates the change management failings at weak uptake sites. Weak uptake sites showed no evidence of the kind of comprehensive approach to change management that was seen at strong uptake sites. The absence of a comprehensive approach to managing change contributed to resistance that was already emerging at weak uptake sites. Key respondents expressed bewilderment, frustration and opposition to the way changes were implemented. Poor change management undermined innovation uptake and fostered resistance to change.

At strong uptake sites deliberate change management strategies were used to support the uptake of ILP innovation and to innovate more broadly. The findings of both my office survey and interviews with key respondents show that
the management of change was superior at strong uptake sites. Specific change management strategies included a focus on consulting with and educating officers and using experts to inform practice and process changes. These approaches were supported by leadership, strong goal orientation and an informal participative management style. At weak uptake sites poor change management was linked to unpopular restructuring and encouraged resistance. Management of change was an important factor impacting on the uptake of innovation in New Zealand.

5.5 Management commitment to intelligence-led policing

Management commitment to ILP sends a strong message to officers about the importance of ILP and sets expectations about what officers are expected to do to support ILP. Police and innovation research has demonstrated the central role that management commitment can play in innovation uptake. Clear management support for community policing, particularly when coupled with supportive behaviours, facilitates innovation uptake (Ford, Weissbein, & Plamondon, 2003). Management support has also been shown to influence the uptake of problem solving by officers (Rosenbaum et al., 1994), and Rogers (2003) points to the importance of management attitudes and characteristics in fostering innovation uptake. Solid management commitment to ILP should be an important factor positively impacting on the uptake of innovation within New Zealand police areas.

In this section I explore the influence of management commitment on the uptake of ILP in New Zealand. I test officer views on management commitment to ILP across my research sites. I address the following questions. What features at my research sites established management commitment in the
minds of officers? Were there any differences in officer understanding of management commitment to ILP? How important was management commitment to the uptake of ILP in New Zealand?

Using my officer survey I explored management commitment to ILP across my four research sites in New Zealand. I tested officers on their perceptions of management commitment to ILP and the extent to which management established policies and procedures to support ILP. Table 5.7 presents the results from my survey after MANOVA tests.

**Table 5.7: Management commitment to intelligence-led policing**

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
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<th>Hihi</th>
<th>Kea</th>
</tr>
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<td>ns</td>
<td>.006</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 7.14  df = 3  p < 0.000  Partial Eta Squared = .071;  *= p < 0.05  ns = not significant

As Table 5.7 shows, officers at strong uptake site Mātātā (M = 9.24, p = .000) viewed their managers as more committed to ILP than officers at weak uptake site Kea (M = 8.24). Officers at weak uptake site Hihi (M = 9.06, p = .006) also viewed their managers as more committed to ILP than officers at weak uptake site Kea (M = 8.24). No other statistically significant differences were reported.

I hypothesised that officers at strong uptake sites would report higher levels of management commitment to ILP than officers at weak uptake sites. I reasoned that there should be a straightforward relationship between clear management commitment to ILP and the uptake of ILP. This was not the case,
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so my hypothesis was not confirmed. One strong uptake site, Mātātā, reported strong management commitment to ILP as did one weak uptake site, Hihi. I now explore my officer survey and interview findings to determine why my results were not as expected.

Mātātā, a strong uptake site, was expected to have high levels of management commitment to ILP and my officer survey confirmed this. As evidence presented in this chapter has shown, managers at Mātātā were strongly committed to ILP and the finding that officers were cognisant of this is consistent with my broad findings. The finding that officers at Kea viewed management commitment to ILP as weak is also consistent with my results. While the area commander at Kea was personally committed to ILP, other managers were less committed or not committed and because of this support for ILP was not communicated down through the chain of command. Managers at Kea were confused about ILP and leadership was inconsistent. Officers remained unconvinced about the overall commitment of managers to ILP at Kea.

My interviews with key respondents at Hihi were able to explain why officers reported high levels of management commitment to ILP. Efforts to develop ILP at Hihi were strongly driven from the top within the local police district. The district had its own local ILP model (L-ILP-M\textsuperscript{34}), which was closely aligned to Ratcliffe’s (2003) 3I model. Officers at Hihi were well aware of the district-wide efforts being made to implement the L-ILP-M that the district commander was leading. The L-ILP-M experienced success in other areas within the district. In this context, my finding that officers believed management was committed to

\textsuperscript{34} L-ILP-M – Local Intelligence Led Policing Model

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ILP is unsurprising. The district commander at Hihi explained his approach to developing ILP in the district.

_District commander Hihi:_

Well they had to be led from the top and I made a point of talking about it, of presenting it, and saying this is our direction, this is our focus, this is what we are going to achieve, um, I have seen it working, I have seen it working in a number of um forces in the [location] ah and, and a number of sorry um, ah [other police sites] in the [location] in particularly [location] and [location], um so if they can do it why can’t we and I mean we starting talking L-ILP-M um and being very focused on, um this is going to be the direction, writing it into our business plans um and just being passionate about it and getting that passion through um to the key gate keepers of the, of the culture if you like.

Officers understood there was high-level management commitment to ILP and this is reflected in my survey results. However, my research shows that the absence of other supportive factors meant this understanding did not translate into uptake of ILP. This is consistent with earlier research demonstrating the importance of coupling management support with supportive behaviours (Ford, Weissbein, & Plamondon, 2003). Evidence presented in this chapter demonstrates the absence of supportive factors at Hihi. Supportive factors seen at strong uptake sites but absent at Hihi included pursuing challenging ILP-related goals, the presence of permeable organisational boundaries, good use of technology, and a participative, informal management style, as well as broad transformational leadership and supportive leadership networks. The addition of many of these factors to high-level management commitment would have seen much stronger innovation uptake at Hihi.

The levels of management commitment to ILP officers reported at strong uptake site Takahē were not as hypothesised. Reported levels of management commitment to ILP were no different to the reported levels of commitment at my
other research sites. I predicted that higher levels of management commitment would be reported at Takahē than at weak uptake sites. To evaluate this finding further I reviewed the officer group category means for the factor management commitment to ILP at Takahē. I was unable to establish any differences between officer groups at Takahē. The findings was generalised across all groups. There was no apparent reason for this null finding. The local district and area commanders were strongly and publicly committed to ILP. There was support for ILP through the rank structure. This finding may be idiosyncratic to Takahē or an anomaly. My interviews with key respondents did not establish any reason why officers at Takahē would believe their managers were not highly committed to ILP.

My research demonstrates that management commitment to ILP as a standalone factor was not important to the uptake of ILP innovation in New Zealand. Management commitment is best considered a secondary or supporting factor in shaping the innovation process. Clearly, management commitment is important, as an initiative such as ILP in a paramilitary organisation like police will not be initiated or developed without management support. However, without crucial supporting factors management commitment is nothing more than an intention to act. Officers at Hihi demonstrated they were well aware of management commitment to ILP but this awareness failed to generate any response from them. My results show that management commitment can contribute to the uptake of innovation if it is in conjunction with other factors, but a demonstration of commitment alone is insufficient to promote innovation uptake or change officer behaviour.
5.6 Goals and loose coupling

A critical factor in the success of any organisation is goal clarity and this is equally true for police. Organisations and their constituent members need to be clear about why the organisation exists and what they are trying to achieve (Boyne, 2003; Simon, 1964). Goals function to unify organisational members and focus action (Boyne, 2003). Unfortunately, in police organisations goal setting is often unclear and accountabilities are confused (Lipsky, 1980; Maguire & King, 2004; Mastrofski, Ritti, & Hoffmaster, 1987). When goals are altered, this can mask defensive behaviour. Goals can be changed to ward off pressure for reform or to reinforce existing structures or organisational practices (Weisburd et al., 2003). Officers may respond negatively to changes in goals by becoming resistant or reluctant supporters (Lipsky, 1980).

A specific instance of misalignment between goals and day-to-day organisational practice is loose coupling. Loose coupling describes a weak relationship between the formal goals of an organisation and the day-to-day behaviour of front-line personnel (Crank & Langworthy, 1996). Evidence from the police literature demonstrates that the extent of loose coupling is an important influence on officer behaviour (Falcone, Wells, & Weisheit, 2002; Mastrofski, Ritti, & Hoffmaster, 1987). The tight coupling of policy and practice that is seen in smaller agencies can be lost as an organisation and the resulting bureaucracy grow. Mastrofski, Ritti and Hoffmaster (1987) found that the willingness of officers to enforce drink driving laws decreased as organisational size increased, suggesting that peer groups may become more influential and goals less influential as an organisation grows. Innovation is unlikely to be supported if officers perceive a disconnection between formal goals and sanctioned behaviour.
In this section I explore the influence of goal setting on the uptake of innovation in New Zealand. I test the commitment of officers to general local area goals, and I assess officer sensitivity to any loose coupling between local goals and officer behaviour. I asked the following questions. How important was officer support for local area goals to the uptake of innovation in New Zealand? Were there any differences in officer support for goals at my four research sites? Were there any differences in the way goals were used by managers at strong and weak uptake sites?

My survey asked officers about their support for and contribution to achieving local area goals. Table 5.8 presents the results from my survey after MANOVA tests, which examined the relationship between officers’ self-reported level of support for local area goals and whether or not they worked in a strong or weak innovation uptake police site.

**Table 5.8: Goals**

<table>
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F = 1.55  df = 3  p < 0.203  Partial Eta Squared = .016;  * = p < 0.05  ns = not significant

As Table 5.8 shows, there were no significant differences between officers located at any of my research sites. This shows that officers were equally committed to local area goals across all four research sites. I hypothesised that officers at sites with a strong ILP uptake would report more commitment to local
area goals. I reasoned that ILP uptake would encourage officer support for
general local area goals. My survey findings did not support this hypothesis.

Despite the null findings from my officer survey, my interviews revealed
important differences in how managers at strong and weak uptake sites used
goals. While my survey tested for general commitment to local area goals,
evidence from interviews with key respondents points to differences in specific
ILP-related goals. Because my officer survey tested for commitment to general
local area goals and not specific ILP-related goals, my officer survey failed to
detect commitment to specific ILP goals. My interviews with key respondents
established that managers at strong uptake sites set specific, challenging crime
reduction goals to stimulate innovation at strong uptake sites. For example, the
area commander at Takahē describes how the district commander for the area
set challenging ILP-related goals in relation to crime reduction, decreasing
traffic accident rates and increasing resolution rates. The five-year goal was a
50% reduction in crime. Officers were expected to contribute to achieving these
goals. The area commander explains.

*Area commander Takahē:*

… basically, it’s ah, 50% reduction in crime by the year 2008, a reduction in
um, ah, fatalities on our state highways to ah, 15 by 2008 and ah, an
increase in resola …, resolutions to 60%. So ah, that, they’re fairly, fairly
easy. I mean they’re fairly clear. They’re not quite so easy but they’re,
they’re fairly clear and so that’s, that, that is solely our ah, our aim. So what
I do to articulate that through the staff is that I run um, ah, what I’ll, what I’ll
do is I’ll run a, an area management meeting and will, will decide what our
key focuses are going to be for that year falling underneath that plan. Then
we will run full station um, planning workshops …

A 50% crime reduction target is a challenging goal by anyone’s standard.
What was the purpose of the setting such an ambitious target? A key senior
sergeant respondent from innovative site Mātātā provides the answer. The
senior sergeant describes how challenging crime reduction goals stimulated continual planning for improvements in crime reduction. The senior sergeant states that if you’re “not continuously assessing and planning where your next reductions are coming from, you don’t have reductions”. Managers at strong uptake sites were committed to and stimulated by challenging improvement goals. Clear challenging crime reduction goals fostered innovation by stimulating managers to find new and innovative ways to achieve those goals.

My interviews with key respondents at weak uptake sites failed to establish evidence of challenging crime reduction goals being set. While officers appeared committed to general local area goals, this did not translate into commitment to ILP-related goals. Officers were supportive of their local area and where prepared to contribute to and support their local area. My research demonstrates that generalised commitment to local area goals is a background feature of NZP areas. While generalised goal commitment was common across my research sites, important differences existed in the development of stimulating ILP goals.

I also tested officer views on the extent of loose coupling across the four areas in my study sample. Table 5.9 presents the results from my survey after using MANOVA testing, which examined officer views on the extent to which officers perceived a gap between policy and expected behaviour, the extent to which they were expected to overlook official guidelines and the link between expectations of management and supervisors.
Table 5.9: Loose coupling

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
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<td>3</td>
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<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 3.29  df = 3  p < 0.021  Partial Eta Squared = .034;  * = p < 0.05  ns = not significant

Table 5.9 shows no statistically significant differences were reported between officer views of loose coupling at any of my research sites. I proposed that the strong uptake of innovation might support a tighter coupling between general goals and behaviour but my survey findings did not support this. It is likely that this null finding is a result of the approach taken to operationalising loose coupling in my survey instrument. Rather than testing for loose coupling between specific ILP-related goals and perceptions by officers of expected behaviour, my officer survey tested for a disconnection between general area goals and acceptable behaviour. If I had tested more specifically for coupling between ILP goals and ILP behaviours, it is likely that results identifying differences between strong and weak uptake sites would have emerged.

The police literature describes the difficulties police have in aligning organisational goals and routine officer behaviour. Often a disconnection is reported between publicly stated goals and the realities of day-to-day officer behaviour (Lipsky, 1980; Mastrofski, Ritti, & Hoffmaster, 1987; Maguire & King, 2004). Coleman (2008) describes the lack of alignment between public commitments to community-oriented policing and police planning and business practice. Weisburd et al. (2003) describe how goals have been used defensively to maintain the status quo, with commitment to crime reduction.
goals being adopted to support formal and hierarchical organisational arrangements. My research, however, shows that police use of challenging ILP-related crime reduction goals were important to the uptake of innovation. Managers were willing to set and embrace challenging goals to support the uptake of ILP. This illustrates both the commitment of managers to ILP and a willingness to take risks (such as a potential failure to meet crime reduction goals) in order to pursue ILP. My research shows police using goals in a novel way to encourage innovative practice and intensify thinking about how strategies and day-to-day practice might support crime reduction, reductions in traffic accident rates and increases in resolution rates.

I conclude that officer commitment to general area goals and any loose coupling to those general goals were not important to the uptake of ILP innovation in New Zealand. My findings identify a distinction between a generalised commitment to local area goals and commitment to ILP-specific goals. The actions of managers in supporting and setting challenging ILP-related goals were important in supporting ILP uptake and stimulating broader innovation. When managers set challenging and clear crime reduction goals, this was associated with much stronger ILP uptake. My findings demonstrate a logical sequence rather than an interaction effect. Manager commitment to crime reduction as a superordinate goal stimulated and supported the uptake of ILP innovation. Commitment to crime reduction and the effects of ILP uptake also stimulated broader innovation that was focused on improving police effectiveness in support of ILP and crime reduction goals. In New Zealand the uptake of innovation was associated with the setting and pursuit of specific challenging ILP-related goals.
5.7 Boundaries

Boundaries describe how an organisation separates itself from its environment. Boundary changes involve changes in organisational membership or major transformations such as merging with another organisation (Maguire & King, 2004). Police organisations are characteristically defensive about organisational boundaries and this defensiveness has underpinned resistance to innovations such as community policing (Long, Wells, & De Leon-Granados, 2002; Scott, 2000). This defensiveness is also often linked to the police culture that is associated with qualities such as suspiciousness, social isolation and group loyalty (Paoline, 2003; Reiner, 1997). These characteristics of the police culture may buttress police organisational boundaries.

ILP innovation is vulnerable to boundary-related difficulties. Resistance to ILP has involved boundary defensiveness from sworn officers who have objected to the inclusion of civilians as analysts within police organisations (Cope, 2004). ILP also calls for meaningful partnerships to be used to support crime reduction (Ratcliffe, 2003, 2008), which can create challenges to insular police organisational boundaries. My research explores the extent to which officer attitudes towards boundary-related changes impacts on the uptake of innovation in New Zealand and addresses the following questions. How important were permeable boundaries to the uptake of innovation in New Zealand? Were there any differences between strong and weak uptake sites in the treatment of organisational boundaries? How did officers view the condition of local organisational boundaries?
My research tested officer attitudes towards boundary defensiveness across my four research sites in New Zealand. My survey explored officer attitudes towards who should participate in police work, and I tested officer attitudes towards civilians doing intelligence work, community group participation in police work, the use of volunteers and the role government agencies play in crime reduction. Table 5.10 presents the results from my survey using the multi-variate analysis of variance test.

**Table 5.10: Boundaries**

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
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<tbody>
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</tbody>
</table>

F = 2.02  df = 3  p < 0.402  Partial Eta Squared = .010;  * = p < 0.05  ns = not significant

No significant differences were reported between officers stationed at any of my research sites. This finding shows that officers at sites with different experiences of ILP innovation did not perceive any difference in the permeability of organisational boundaries. From the individual officer perspective, there were no differences in officer views as to who could participate in police work.

My officer survey findings and interview findings diverge on the importance of organisational boundaries. Despite the null finding from my survey results, interviews with key respondents demonstrate that boundaries at strong uptake sites were more permeable than those at weak uptake sites. At Mātātā, for example, there was evidence of widespread use of volunteers to support local policing and intelligence activities, comprehensive engagement with other
central government agencies and the innovative use of civilians in support roles traditionally undertaken by sworn officers. The area commander, the sergeant in charge of the Intelligence Unit and a key senior sergeant explain further in the following quotations.

*Area commander Mātātā:*

… a kiosk in town which was manned by volunteers um, during the week on the main street. We had the neighbourhood support group was run from the main station and they managed all the neighbourhood support for the whole city … they managed a twice-yearly [crime reduction] magazine which went to every home in Mātātā … volunteers also managed some stuff for Intel\(^{35}\) for us, like the mail outs to the burglary complainants and things like that, just basic level stuff. They did second-hand dealers checks for us in the main street and the CBD\(^{36}\) and they also ran our, our community surveys for us.

*Sergeant in charge Intelligence Unit Mātātā:*

R: There is a formal relationship with the council, especially relating to the, the information sharing, they actually attend our station meetings on Monday mornings.

D: Hmm.

R: As well as Probation\(^{37}\) ah, Corrections\(^{38}\) are invited as well. So they come in from the prison. Um, the Courts\(^{39}\) come across as well, we have quite a relationship with them, especially with the collections department of the Courts. So as I said we had that fines week last week, where the gang group organised we better go and pick off the top 40 unpaid fines people.

*Key senior sergeant 1 Mātātā:*

She was the O/C\(^{40}\) of the watchhouse for a number of months.\(^{41}\) Caused a huge furore outside of the station because she wasn’t a, a sergeant she

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35 Intel – Intelligence.
36 CBD – central business district.
37 Probation – Community Probation Service.
38 Corrections – Department of Corrections.
39 Courts – Department for Courts.
40 O/C – officer in charge.
41 In this example, a civilian employee was put in charge of watchhouse and prisoner management facilities as an experiment. Traditionally, this was a role for a sworn
wasn’t a sworn person you can’t do it and all the bits and we, we just did these things and, and they all worked.

These quotations show how permeable organisational boundaries were at strong uptake sites. Managers at strong uptake sites were willing to experiment with changes to organisational boundaries in order to establish effective approaches to local crime reduction challenges. These quotations show how open organisational boundaries were at Mātātā. The broad use of volunteers, the use of civilian employees in non-traditional roles and the development of close working relationships with key agencies all point to highly permeable boundaries at Mātātā.

In contrast, respondents from weak uptake sites reported that organisational boundaries were less permeable. Interview respondents from key local government agencies at weak uptakes sites described being excluded from a full partnership with police. Respondents said they were excluded from meetings and reported “tokenism” from police in important relationships. The community project worker at Kea, for example, described being excluded from attending regular station meetings, while noting that other police areas in New Zealand included local government representatives.

Community project worker Kea:
I don’t, like I don’t attend their weekly meetings or anything and at one stage, you know, a number of years ago, people in my role at different councils often have been invited to attend those meetings.

D. This is like the crime meeting?\textsuperscript{42}

\textsuperscript{42} Crime meetings – weekly station meetings focusing on a review of crime occurrences and operational planning.
Chapter 5: Organisational Factors

R. Yep. I never have.

A further example comes from the community worker at Hihi who describes a failure by police to engage in a key community project. The worker characterises their relationship as “tokenism”.

Local government community worker Hihi:

S: … they've gone ahead and done it um, but they haven't engaged with neighbourhood support, they haven't engaged with me, you know, its tokenism and I, I think too token partnerships I’m afraid.

D: Um.

S: So at the moment city council logo is sitting on all the neighbour support stuff but I'm, that, I am going to have to get them to take those off because we are, we are not involved, so we are not going to pretend to be involved you know.

Overall my interviews with key respondents provided evidence for important boundary differences between strong and weak uptake sites. Strong uptake areas were willing to experiment with changes in organisational boundaries to support the development of ILP and the pursuit of crime reduction goals. This boundary openness extended into sensitive aspects of police work such as civilians doing intelligence work, using volunteers in a wide variety of roles, including roles traditionally undertaken by sworn officers, and sharing responsibility for crime control with key government agencies. My interviews with respondents at weak uptake sites demonstrated boundary defensiveness with key partners and much less willingness to experiment with traditional police boundaries.

I note the tension between my interview findings and the results of my officer survey. My survey found that officers held similar attitudes towards local organisational boundaries across all my research sites, yet my interviews with
Intelligence-Led Policing in New Zealand

key respondents show that managers at strong uptake sites were committed to experimenting with organisational boundaries. My survey studied officer attitudes towards who should be included in police work. Therefore, my survey findings demonstrate that officers held similar views about who should be included in police work. My survey accurately evaluated officer attitudes towards boundaries but did not reflect accurately enough the actual permeability of local area boundaries. I hoped that the current state of boundaries would be reflected in officer attitudes, but this does not appear to be the case. My survey reflected a common attitude to boundaries among officers at my research sites, but not the activities of local managers in experimenting with boundaries to support ILP innovation.

My research finds important differences in the approaches to boundaries between strong and weak innovation uptake sites in New Zealand. Not only were boundaries more permeable at strong uptake sites but managers experimented with novel boundary settings in an effort to achieve ILP-related crime reduction goals and more general effectiveness. Examples of innovative approaches included the widespread use of volunteers, purposeful partnerships and the use of civilian staff in roles usually reserved for sworn officers. More permeable organisational boundaries were associated with the uptake of innovation. More characteristic boundary defensiveness was evident at weak uptake sites (Long, Wells & De Leon-Granados, 2002; Paoline, 2003; Reiner, 1997; Scott, 2000).

5.8 Organisational culture and interconnectedness

Many police researchers have focused on the police culture as an important influence on police behaviour (Bowling & Foster, 2002; Chan, 1997; Foster,
Recently, research has pointed to the dynamic nature of police culture and the variety of interactions that shape and change the culture (Chan, 1997; Cochran & Bromley, 2003; Reiner, 2000; Rosenbaum, Yeh, & Wilkinson, 1994; Sklansky, 2007, 2008; Skolnick, 2008). The traditional police culture is characterised by social isolation and group loyalty driven by shared experiences and an unpredictable operational environment (Paoline, 2003). The police culture has been presumed to be a major barrier to police innovation but no strong evidence supports the link between police culture and actual police behaviour (National Research Council, 2004). Police culture has been identified as an impediment to the uptake of ILP innovation. Cope (2004) suggests that cultural divides between sworn officers and civilian staff can undermine the uptake of ILP with sworn officers frequently misunderstanding the role of analysts and criticising the quality of product coming out of Intelligence units.

One component of culture is the strength of members’ social ties or interconnectedness. Interconnectedness describes the extent to which the units in a social system are linked by interpersonal networks (Rogers, 2003). The innovation literature points to interconnectedness as an influence on the uptake of innovation. Rogers (2003) suggests that new ideas may flow more easily within a social system if there is a high degree of interconnectedness and that this can support innovation. Interconnectedness has been linked to the uptake of innovation (Linton, 2002).

In this section I explore the influence of police culture and interconnectedness on the uptake of innovation in New Zealand. I test officer views on the prevalence of traditional police culture and the strength of
Intelligence-Led Policing in New Zealand

interpersonal networks within their local police area. This section addresses the following questions. How important was police culture and interconnectedness to uptake of innovation in New Zealand? Were there any differences in officer perceptions of police culture and interconnectedness at my research sites? Were there any cultural or interpersonal network differences across my research sites?

My research tested officer views on local police culture across four police areas in New Zealand. To test officer views of the local culture I explored officer views on features such as dedication to the ideals of police work, public respect for police, outlook and cynicism. I used these results to explore the extent to which police culture contributed to the adoption of ILP practices within the four police operational areas in my study sample. Table 5.11 presents the results of my officer survey using the multi-variate analysis of variance test.

Table 5.11: Organisational culture

<table>
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<td>x</td>
</tr>
</tbody>
</table>

F = 2.66  df = 3  p < 0.048  Partial Eta Squared = .028;  * = p < 0.05  ns = not significant

As Table 5.11 shows, there were no statistically significant differences in officer perceptions of local police culture at any of my research sites.

My research also tested officer views on interconnectedness. My survey explored officer views on levels of trust among co-workers, enjoyment of working with colleagues and the quality of relationships with colleagues.
Table 5.12 presents the results from my survey using the multi-variate analysis of variance test.

Table 5.12: Interconnectedness

<table>
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<th>Mean</th>
<th>Rank</th>
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<td>ns</td>
<td>x</td>
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</tbody>
</table>

F = 1.47  df = 3  p < 0.223  Partial Eta Squared = .015;  * = p < 0.05  ns = not significant

Table 5.12 shows no statistically significant differences were reported between officer views on interconnectedness at any of my research sites.

I hypothesised that the uptake of innovation might weaken the influence of police culture, leading officers to report that the police culture was less prevalent at strong uptake sites. I thought that the adoption of ILP and the uptake of clear goals and evidence-based approaches might weaken officer cynicism, motivate officers, and see officers adopt a more positive world view. My hypothesis and reasoning were not supported by my officer survey findings. I offered no hypothesis in relation to interconnectedness.

To explore these findings further I reviewed the means for officer category groups across all my research sites, looking for differences for the factors culture and interconnectedness. I tested using an independent samples t-test any means that appeared substantially different. There were no statistically significant differences for any group category means across my research sites. There was a strong level of consistency across all sites and category groups for the factors police culture and interconnectedness.
As Table 5.12 shows the viscosity of social ties between officers was similar across all sites with no variation between strong and weak uptake sites. My interviews across all research sites did not reveal any differences in interconnectedness across my research sites. I conclude that interconnectedness is a standard background feature of the New Zealand policing environment. Interconnectedness was not associated with the uptake of innovation or the emergence of resistance to change.

My interviews with key respondents drew accounts of positive local cultures at strong uptake sites and descriptions of mixed features at weak uptake sites. There was no consistent theme regarding the state of the culture at weak uptake sites. Various accounts were provided from descriptions of the local culture to accounts of changes over time with younger officers being less dedicated to police work than their older colleagues. Stronger and more consistent themes emerged from interviews at strong uptake sites. A repeated theme was the description of a “can do” subculture. A key senior sergeant respondent from Mātātā described the local culture, drawing comparisons between Mātātā and other police areas in which he had worked.

Key senior sergeant 2 Mātātā:
Ah, for me yeah. Some of the things that um, ah, ah, probably don’t stand out much to me now because I’ve been there three years but when I first came back here things that really stood out for me was the can do attitude um, the um, the sort of um, the involvement of the management group in day-to-day policing. Um, the um, joint decision making. Um, the um, just the um, the focus on crime reduction um, and identifying problems and um, finding solutions and, doing specific um, you know your DPR\textsuperscript{43} um, your um, ah, taskings and all that sort of thing, which we’ve developed over the last two or three years further with the tactical co-ordinators role um, has certainly dd …, you know um, is different from where I’ve ever worked.

\textsuperscript{43} DPR – directed patrol report, which is a document recommending where and when officers should patrol.
before. Um, the ah, the involvement of the CIB in it is, is ah, is different um, the use of a tactical group is different um, and yeah, just the willingness of, of everyone to ah, to be involved to ah, get a result really.

The senior sergeant lists important features: management involvement, joint decision making, a focus on crime reduction and problem solving, a focus on tasks, the involvement of detectives and the general willingness of staff to get involved. These features suggest a positive local environment that is a long way from the social isolation and group loyalty typical of the traditional police culture (Paoline, 2003).

Recently, the utility of police culture as an explanation for police behaviour was called into question. Researchers point out the link between police culture and police behaviour is unproven and that police culture may be more diverse and less influential than previously proposed (Chan, 1997; National Research Council, 2004; Sklansky, 2007, 2008; Skolnick, 2008). Police officers may share an occupational identity but many factors, particularly situational factors, impact on actual police behaviour far more than culture (National Research Council, 2004). In addition, research suggests distinctive police subcultures can emerge that are shaped by factors such as demographic changes and changes in patterns of officer education (Sklansky, 2007, 2008; Skolnick, 2008).

My research shows the emergence of a distinctive subculture associated with the strong uptake of ILP innovation. The ILP subculture has the following characteristics: a broadly accepted focus on crime reduction as the overarching goal for local police, support for partnerships and problem solving as legitimate policing strategies, tolerance for experimentation and trial of novel approaches, support for ILP, a willingness to follow ILP leadership, openness to learning, and a willingness to participate and contribute to improvement and general
innovation. Basic features of the police culture such as suspiciousness, cynicism, social isolation and group loyalty (Paoline, 2003) are present, but are masked or mitigated by features of the subculture.

My research suggests that New Zealand police officers share a culture or occupational outlook but this outlook is not a factor that influences the uptake of innovation. This shared outlook seems to be neutral vis-à-vis ILP innovation and was consistent across all research sites and officer categories. While the police culture may cause police officers to share a common outlook, many other factors are more important in shaping actual behaviour and any negative aspects of police culture appear to be readily attenuated. The strength of interpersonal networks or interconnectedness was also consistent across my research sites.

My findings demonstrate that ILP uptake is associated with the development of an ILP subculture with distinctive features. These features include a willingness to pursue challenging crime reduction goals, high levels of participation by officers, the involvement of detectives, consultation with staff in developing ILP, a commitment to and comfort with ongoing innovation and change, and unified management – what a key senior sergeant respondent from Kea and many other respondents identified as a “can do” approach. This subculture was associated with the uptake of innovation and emerged strongly from my interviews with key respondents. This subculture was strongly associated with the uptake of ILP innovation.

5.9 Innovativeness

Innovativeness is the degree to which a social unit adopts innovations before other social units in the same social system adopt them (Rogers, 2003).
Studies of police innovativeness have focused on the adoption of technology and the influence of environmental factors on the diffusion of police innovations. Research suggests a focus on reform in the political environment (Morabito, 2008) and more unstable and turbulent environments may promote earlier adoption of community policing (Zhao, 1996). The adoption of technology is influenced by involvement in cosmopolitan networks, the capacity of the organisation and the characteristics of key individuals (Skogan & Hartnett, 2005). Weisburd and Lum (2005) concluded that knowledge of research and interaction with a research community influenced the adoption of computerised crime mapping. Weiss (1997) concluded that cosmopolitanism, peer emulation participation in policy communities and risk mitigation influenced the adoption of innovation by police.

Rogers (2003) summarises key findings from the innovation literature. Innovativeness can be a feature of the overall social system or of the key decision-makers in the social system (Rogers, 2003). Innovativeness is often linked to cosmopolitanism, the education and innovativeness of managers, and the size of organisations (Rogers, 2003). Larger organisations with more slack resources are often more innovative, as slack resources encourage or permit greater experimentation within the organisation (Rogers, 2003). More specifically, organisational innovativeness is linked to the internal qualities seen within an organisation such as comfort with risk taking, tolerance for creativity, receptivity to change and encouragement of new practices (Brody, DeMarco, & Lovrich, 2002).

I tested levels of general innovativeness at my police research sites. I was interested to explore any differences in general innovativeness associated with
the uptake of ILP innovation. This section addresses the following questions. Where there any differences in officer views on general innovativeness at my research sites? Where there any differences in approaches to innovativeness at my research sites? How important was innovativeness to the uptake of innovation in New Zealand?

My research tested officer views on the innovativeness of their local police area across my New Zealand research sites. My survey explored officer views on the extent to which risk taking was encouraged, and whether leaders and managers were receptive to change and encouraged innovative practices. Table 5.13 presents the results from my survey using the multi-variate analysis of variance test.

**Table 5.13: Innovativeness**

<table>
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<th>Kea</th>
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</tr>
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F = 5.08  df = 3  p < 0.002  Partial Eta Squared = .051;  * = p < 0.05  ns = not significant

As Table 5.13 shows officers at strong uptake site Mātātā (M = 8.62, p = .001) viewed their area as more innovative than officers at weak uptake site Kea viewed their area (M = 7.74). There were no other statistically significant differences.

I hypothesised that strong innovation uptake sites would report being more innovative than weak uptake sites. I reasoned that general innovativeness at strong uptake sites would be more prominent. My hypothesis was supported by
officer survey findings, with strong uptake site Mātātā reporting significantly more innovativeness than weak uptake site Kea. No other differences were reported.

I explored these findings further through interviews with key respondents. My interviews showed that innovativeness was a strong feature of the organisational environment at Mātātā. Earlier in this chapter I pointed to evidence of innovative behaviour at Mātātā, including developing simplified paperwork for officers and more permeable organisational boundaries. When interviewed about innovation within Mātātā, the area commander contrasted Mātātā with other police areas. In his view Mātātā was innovative and prepared to try new approaches and “have a crack”. He describes not only being open to new ideas but wanting to develop new innovations to a higher standard and more quickly than anyone else.

*Area commander Mātātā:*

> Ah, in general very open and I guess as a reference point New Zealand police as opposed to 3M.44

D: Police yeah.

R: They’re not riding on scooters and [laughs] working flexi-hours all the time and …

D: Right but, but in, in terms of …?

R: NZP yeah. We were open to new ideas, always open to have a crack. If we can do it before the rest of the district it would be even better you know, like if, Brendan45 made the point about road policing performance, well once we decided what we’re going to do it, we we’re going to do it better and

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44 The area commander was referring to the international company 3M, which is an organisation with a reputation for innovation (see the company’s website at http://www.3m.com).

45 Brendan is a pseudonym.
quicker than anyone else and once you start talking that up with your NCOs and you have good ones as well, good ones just make it happen.

At Mātātā a range of innovative behaviours were evident and key managers were enthusiastic about embracing new ideas. ILP at Mātātā was mature and institutionalised and the area was committed to experimenting with ongoing innovation. My research suggests Mātātā was more innovative than Takahē. Mātātā had a considerable history of innovation development and uptake. Takahē was at an earlier stage of the ILP innovation life cycle. This gap in maturity and innovation history explains my officer survey finding that strong uptake site Takahē was no different in overall innovativeness compared with weak uptake site Hihi. If ILP develops at Takahē following the same overall pattern as at Mātātā, it is probable greater overall innovativeness will emerge.

Key respondents at weak uptake sites Kea and Hihi provided a range of responses to questions about innovativeness. Typically, respondents expressed a view that their local area was more open to innovation now than it ever had been, particularly in relation to ILP. However, at Kea, for example, my interview with a key community partner suggested that the area was resistant to new ideas. The community project worker at Kea provided an external perspective on innovativeness at Kea. The worker suggested Kea was not innovative and did not respond well to ideas coming from outside the organisation.

Community project worker Kea:
R: Personally, I don’t think they are that innovative.
D: Yeah?

---

46 NCOs – non-commissioned officers.
They might think they are.

Yeah.

R: But I don't think they are, um, and often what happens is if it's not their idea, it's not a good idea.

Um.

R: Um, but um, often I see, not all the police, but too many of them, and this is in a way almost going back to the, a certain culture, but they've got the blinkers on.

Yeah.

R: They're not, they're not as open minded as they should be.

It was clear from my interviews with key respondents at weak uptake sites that general innovativeness was not prominent or encouraged. The areas were struggling to come to terms with ILP and these difficulties had a chilling effect on general innovativeness. Weak uptake site organisational environments were not innovation friendly. The challenges of developing ILP fostered broader innovations at strong uptake sites but had the opposite effect at weak uptake sites, creating hostility to broader innovations. Overall, in the interviews there was little tolerance for risk taking or encouragement of innovative practices at weak uptake sites.

General innovativeness was important to the overall uptake of innovation and distinguished strong from weak uptake sites in New Zealand. At Mātātā (which had a substantial history of ILP innovation and was the most mature ILP uptake site) there was a willingness to adopt new practices, a tolerance for risk taking and a receptiveness to change. General innovativeness was a characteristic of the organisational environment at Mātātā and was emerging at Takahē. As Mastrofski and Ritti (1996) observe, change efforts are likely to fail unless introduced into a supportive environment. My research indicates that
innovations such as ILP are likely to succeed when introduced into a supportive innovation-friendly environment. General innovativeness was an important factor that contributed to the uptake of ILP innovation in New Zealand.

5.10 Technology

Technology describes the processes and systems an organisation uses to accomplish its work (Maguire, 2003). In the past decade, information technology has become the bedrock of most police processes and systems. Rosenbaum (2007) suggests that since 2001 police have entered an information technology era. The emergence of data-driven policing, hot spots policing, CompStat, geographically-based crime fighting (Rosenbaum, 2007) and ILP (Ratcliffe, 2003, 2008) all emphasise the importance of information technology to contemporary policing. Police need to successfully adopt and adapt new technology in order to successfully innovate. However, research shows that when police do adopt new technology results are often disappointing. Rather than taking the opportunity to try fresh approaches, police integrate technology into traditional structures and approaches (Chan et al., 2001; Maguire & King, 2003; Weisburd et al., 2003). The emergence of ILP has been accompanied by information technology–related challenges, including managing and maintaining data quality and data flow (Cope, 2004; Tilley, 2003; Townsley, Johnson, & Pease, 2003).

CompStat – Computer Statistics. CompStat is “most frequently understood by its most visible elements … up-to-date computerized crime data, crime analysis, and advanced crime mapping as the bases for regularised, interactive crime strategy meetings which hold managers accountable for specific crime strategies and solutions in their areas” (Silverman, 2006, p. 268).
In this section I investigate important technology-related questions. How important was technology to the uptake of ILP innovation in New Zealand? Was there any evidence of differences across my research sites in the way technology uptake was addressed? How important was technology uptake to front-line officers?

My research tested officer views on how their local police area was adapting to technology across my four police study sites in New Zealand. My survey explored officer views on their knowledge of crime trends, use of crime maps, technology-related training, how well technology supported crime reduction and ease of access to information. Table 5.14 presents the results from my survey using the multi-variate analysis of variance test.

**Table 5.14: Technology**

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.18 1</td>
<td>x</td>
<td>.010</td>
<td>.000*</td>
<td>.000*</td>
</tr>
<tr>
<td>13.91 2</td>
<td>.010</td>
<td>x</td>
<td>ns</td>
<td>.001*</td>
</tr>
<tr>
<td>13.48 3</td>
<td>.000*</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>12.45 4</td>
<td>.000*</td>
<td>.001*</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 16.9  df = 3  p < 0.000  Partial Eta Squared = .152;  * = p < 0.05  ns = not significant

Officers at strong uptake sites Mātātā (M = 15.18, p = .000) and Takahē (M = 13.91, p = .001) viewed their local police areas as making better use of technology than officers at weak uptake site Kea (M = 12.45). Officers at strong uptake site Mātātā (M = 15.18, p = .000) also viewed their local police area as making better use of technology than officers at weak uptake Hihi (M = 13.48). Officers at strong uptake site Mātātā (M = 15.18, p = .010) also viewed their
local police area as making better use of technology than officers at strong uptake Takahē ($M = 13.91$).

My officer survey findings clearly demonstrate the importance of technology to the uptake of innovation in New Zealand. Officers at strong uptake sites, particularly Mātātā, clearly viewed their local areas as making much better use of technology than officers at weak uptake sites. Successfully adapting technology was strongly associated with the uptake of innovation.

My interviews with key respondents provided evidence that bolstered the results presented in my officer survey. In particular, clear features distinguished the approach of managers at strong uptake sites to the challenges of technology. At Mātātā, managers were committed to making technology credible. Managers recognised that officer judgements about technology (broadly defined as processes and systems supporting ILP) as well as about the effectiveness of information technology would be determined by the performance of the local Intelligence Unit. To guarantee the unit’s credibility, managers intentionally populated the unit with the highest quality staff who carried the respect of fellow officers. Managers also ensured no “lame ducks” (key senior sergeant 2 Mātātā) worked in the Intelligence Unit. There was an explicit recognition that the Intelligence Unit was at the heart of how the area organised its work as well as how the area adapted to new technology (Maguire, 2003; Ratcliffe, 2008). Managers recognised that maintaining the credibility of intelligence was fundamental to the success of ILP and to the acceptance of changes in technology. When asked how Mātātā approached technology challenges, a key senior sergeant respondent summarised the area’s strategy.
Key senior sergeant 2 Mātātā:

There’s always a challenge to it. Um, especially especially in the intel\textsuperscript{48} ah, environment where um, our philosophy is to kind of have the best staff in there um, we’ve got an approach where you don’t have any lame ducks, we don’t put anyone in there cause they’re, they’re injured or, or ah, can’t do front-line duties for any other reason, you have to have ah, street creds to ah, to get a job in there.

D: Hmm.

R: Um, which is important throughout that flows throughout the whole station um, so we built up with a mixture of sworn and non-sworn. The sworn guys um, bring that front-line approach and the credibility and the knowledge of the street with them. Um, we’ve got two non-sworn analysts at the moment we’re, we’re kind of relying on them bringing a high technical um.

D: Um hm.

R: component for us. So that we um, always looking to be as sharp as we possibly can but that, you know, whatever um, I&T\textsuperscript{49} ah, tools are available to us that we’re making absolute most of them.

Managers at Mātātā recognised that the performance of the Intelligence Unit was at the heart of ILP innovation. So much depended on the products coming out of and processes centred in the Intelligence Unit that a heavy emphasis was placed on the standing of the personnel who populated the unit. Managers recognised that officers would judge the credibility of local ILP as well as the area’s use of technology by the performance of the local Intelligence Unit. My survey findings indicate that this approach was highly successful, with officers viewing their local area as making the best use of technology across all of my research sites. The effective use of technology is clearly linked to the strong uptake of innovation. Much of the success of local ILP innovation turned on the credibility of the Intelligence Unit.

\textsuperscript{48} Intel – intelligence.

\textsuperscript{49} I&T – information and technology.
By way of contrast, at strong uptake site Takahē there was acknowledgement that work still needed to be done to lift local technology performance. A key senior sergeant respondent at Takahē noted that the area still had “some work to do” in fully developing the capacity of the Intelligence Unit, particularly around specific information technology tools.

*Key senior sergeant 1 Takahē:*
Well it’s still work in progress. I mean you probably know about our, our [intel] section. I think intel is the key ah, to it and um, we can, intel’s an interesting piece. I mean there are obviously, obviously a platform for in …, information and technology is there but also the people who work in intel have to use their own brains as well about solving crime. It’s a tool, to, to, achieve our end objective which is to reduce crime and crash sustainability in the Takahē area.

D: Hmm.

R: I mean we have definitely got some work to do around our business objects, about getting the icons all set up to do the searches and help us out to the predictability and all that, and all that sort of stuff, there is definite work to be done there …

This lag in technology performance explains the difference seen in my officer survey between strong uptake sites Takahē and Mātātā. Mātātā was more mature than Takahē in its development of technology. This is consistent with ILP being institutionalised at Mātātā, but still being implemented at Takahē. Mātātā was at a more mature stage in the innovation life cycle. My officer survey results reflect this difference.

At weak uptake sites respondents reported that their local areas had a range of technology-related difficulties, but no consistent themes emerged. The area commander at Kea was concerned about information technology training being “normally insufficient and it’s always rushed”. The district commander at

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50 Intel – intelligence.
Kea had worries about the ability of information technology tools to deliver quality product due to “garbage in, garbage out”, expressing concerns about double entry of data undermining quality analysis. At Hihi concerns were expressed about the lack of consistent local work practices with “intels[51] operating with different tools in different ways in complete isolation” (key senior sergeant 1 Hihi). Overall, no coherent themes emerged from weak uptake sites, but a range of technology problems were reported. Interviews with key respondents confirmed strong uptake sites made much better use of technology than did weak uptake sites.

My overall findings clearly associate the uptake of ILP innovation with successful use of technology. My results also establish that ineffective technology management and suboptimal use of information technology is associated with weak ILP innovation uptake. At strong uptake sites, managers focused on effective technology management and making the best possible use of available information technology tools. They also explicitly recognised the centrality of the Intelligence Unit to the uptake of ILP. The integration of high quality staff into local Intelligence Units was critical to ensuring those units developed and maintained credibility in the minds of officers.

5.11 Conclusion

My results identify key organisational factors associated with the uptake of ILP innovation in New Zealand. Many organisational factors emerged as important in supporting the uptake of innovation. Clearly articulated and challenging crime reduction goals were used to stimulate innovation by providing ongoing challenges to managers and officers. Strong uptake sites

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[51] Intels – Intelligence units.
Intelligence-Led Policing in New Zealand

were willing to experiment with changes to their organisational boundaries, particularly when these changes supported crime reduction goals. Managers at strong uptake sites were also active in reducing formality, encouraging officer participation and supporting initiatives to reduce the administrative burden on officers. This approach was seen as creating the right organisational environment for innovation uptake. Managers at strong uptake sites were also much better at managing change. Managers at strong uptake sites made much better use of technology, especially information technology. Strong uptake sites worked hard to staff local Intelligence units with credible officers and recognised that Intelligence units were at the heart of ILP innovation. Managers recognised that the success of innovation turned on the performance and standing of local Intelligence units.

Leadership factors emerged as making the most important contribution to the uptake of ILP innovation. Transactional leadership behaviours at strong uptake sites focused on important ILP-related tasks. Managers limited the use of authority to ensuring these tasks were completed. The clearest and strongest evidence emerged for the importance of transformational leadership to the uptake of innovation. Managers at strong uptake sites focused on inspiring and motivating individual officers to support ILP. Weak transformational leadership was associated with resistance to change and weak innovation uptake. Key leadership coalitions were necessary for innovation to flourish. Where leadership lacked a critical mass or was deficient in the command structure, ILP innovation struggled.

The traditional police organisation culture was neutral in relation to innovation uptake in New Zealand. Officers across all research sites shared a
common outlook but this did not impact on innovation. Other factors were much more important. Evidence emerged of a ‘can do’ subculture at strong uptake sites that both supported ILP uptake and contributed to the development of continual innovation. Table 5.15 summarises the findings of this chapter.

The effectiveness of changes in police organisational arrangements determines the course of police innovation. As my research demonstrates, innovations such as ILP are brought to life through changes in leadership, goals, technology, boundaries, practice, training and management arrangements. The process is complex and outcomes uncertain. My research findings have compared and contrasted how differing approaches to important organisational factors have produced divergent outcomes across my research sites. Within a national police agency different configurations and approaches to a broad range of important organisational factors have both encouraged and limited innovation uptake.
**Table 5.15:** Summary of impact of organisational factors on uptake of intelligence-led policing (ILP) innovation at strong and weak uptakes sites

<table>
<thead>
<tr>
<th>Organisational factor</th>
<th>Strong uptake sites</th>
<th>Weak uptake sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional leadership</td>
<td>Transactional leadership targeted at desired ILP behaviours</td>
<td>More generalised transactional leadership</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>Strong evidence for importance of transformational leadership focused on motivating and inspiring officers and individualised consideration</td>
<td>Weak transactional leadership</td>
</tr>
<tr>
<td></td>
<td>Critical mass of leadership through the command structure and across the local organisation important to innovation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal and external leadership coalitions supported innovation</td>
<td></td>
</tr>
<tr>
<td>Management style</td>
<td>More participative management style</td>
<td>Less participative management style</td>
</tr>
<tr>
<td>Formalisation</td>
<td>Less formal and more flexible administrative apparatus important to uptake of innovation</td>
<td>More formalised, less flexible administrative arrangements</td>
</tr>
<tr>
<td>Management of change</td>
<td>Better change management associated with innovation</td>
<td>Poor change management, focus on restructuring</td>
</tr>
<tr>
<td>Management commitment to ILP</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Goals</td>
<td>General commitment to goals had no impact</td>
<td>General commitment to goals had no impact</td>
</tr>
<tr>
<td></td>
<td>Challenging ILP crime reduction goals associated with innovation uptake</td>
<td></td>
</tr>
<tr>
<td>Loose coupling</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Interconnectedness</td>
<td>No impact</td>
<td>No impact</td>
</tr>
</tbody>
</table>
### Organisational Factor

<table>
<thead>
<tr>
<th>Organisational factor</th>
<th>Strong uptake sites</th>
<th>Weak uptake sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boundaries</td>
<td>Greater willingness to experiment with changes to organisational boundaries</td>
<td>Boundary defensiveness</td>
</tr>
<tr>
<td>Organisational culture</td>
<td>Traditional police culture neutral with regard to innovation</td>
<td>Absence of ‘can do’ subculture</td>
</tr>
<tr>
<td></td>
<td>Evidence of ‘can do’ ILP subculture</td>
<td></td>
</tr>
<tr>
<td>Innovativeness</td>
<td>Better general innovativeness associated with innovation</td>
<td>Weaker general innovativeness</td>
</tr>
<tr>
<td>Technology</td>
<td>Strong evidence for importance of successful use of technology, especially information technology, and centrality of Intelligence units in adopting ILP</td>
<td>Poor use of technology and weaker Intelligence units</td>
</tr>
</tbody>
</table>

In the next two chapters I turn from the influence of organisational factors on ILP innovation uptake in New Zealand to the influence of environmental and individual factors. Organisational factors have functioned in a relatively straightforward way in supporting or inhibiting innovation uptake. My findings in the next two chapters highlight both direct effects and important interactions as organisational, environmental, and individual factors converge to support or constrain the innovation process.
Chapter 6: Environmental Factors

6.1 Introduction

The wider innovation literature points to a complex interplay between environmental and organisational factors impacting on the innovation process. Factors such as environmental pressures and organisational size can influence innovation (Kimberley & Evanesko, 1981; Slappendel, 1996; Rogers, 2003). Recent research points to the influence of factors such as community size influencing police organisations (Maguire, 2003; Wells, Falcone, & Rabe-Hemp, 2003). Officers in bigger agencies often believe they are overworked (Wells, Falcone, & Rabe-Hemp, 2003) and unstable environments may cause police to organise themselves with greater structural complexity and more centralisation (Maguire, 2003). Additionally, local neighbourhood characteristics influence police conduct such that officers in high crime neighbourhoods may fail to make arrests or write reports for crimes that would warrant a response in less-traumatised communities (Kania & Mackey, 1977; Klinger, 2004; Riksheim & Chermak, 1993; Smith, 1986).

Whilst many environmental factors impact on police organisations the foundation of operational policing is maintaining key relationships with core constituencies. Police relationships are often driven by conflicting demands and high public expectations (Goldstein, 2003). The constant threat hangs over police that a failing relationship may lead to a legitimacy crisis (Crank & Langworthy, 1992; Reiss & Bordua, 1967; Scott, 2003). Police must remain credible to diverse community and interest groups. Contradictory demands from stakeholders can pull police in different directions. Police need to clearly define critical relationships and be alert to changing demands. Key
relationships for police include those with communities, the media, and the police union, as well as political relationships (Chan & Mauborgne, 2003; Crank & Langworthy, 1996; Falcone, Wells, & Weisheit, 2002; Finnane, 1999; Hassell & Zhao, 2003; Goldstein, 2003; Hassell, Zhao, & Maguire, 2003; Kadleck, 2003; Mastrofski, Ritti, & Hoffmaster, 1987; Moore et al., 1999; Reiss & Bordua, 1967; Saltzstein, 1989; Wilson, 1968).

This chapter explores the relationship between environmental factors and the uptake and resistance to the uptake of intelligence-led policing (ILP) innovation in New Zealand. The relationship is hypothesised to be complex and two way. Environmental factors are likely to influence the uptake of innovation and the uptake of innovation is likely to influence the capacity of police areas in New Zealand to address environmental issues. Neighbourhood factors, for example, may make officers less likely to report crime in high crime locations. This may undermine the effectiveness of ILP. On the other hand the uptake of ILP is expected to influence the capacity of police to deal with environmental issues. Strong ILP uptake may weaken the influence of neighbourhood factors as officers follow intelligence directives in high crime neighbourhoods. I consider these kinds of interactions as I interpret my findings. In this chapter, I merge the results from my officer survey with my in-depth interviews with key stakeholders to investigate the role of environmental factors on the capacity of the New Zealand Police (NZP) to adopt ILP. My research explores how environmental factors stimulated, supported and hindered local police innovation.
6.2 Media relationships

The news media can be a major influence on police behaviour. Negative media coverage can stimulate police directly or through third parties such as politicians (Ankony & Kelley, 1999). Media coverage can encourage, change or promote innovation (Moore et al., 1999) or compel presentational behaviours and superficial changes (Crank & Langworthy, 1992). Negative media reports can cause officers to feel alienated from their communities and stimulate defensive outlooks and behaviours (Ankony & Kelley, 1999).

My research examined officer views of the media across my four research sites in New Zealand. I assessed officer views on the impact of media coverage on their decision to become a police officer, their perceptions of their career, their perceptions of the image of the NZP, and perceived levels of disruption to their work. New Zealand has a population of just over 4 million and a correspondingly small media. New Zealand media are fairly homogenous and news is widely reported nationally (Goode & Zuberi, 2004). When I conducted my officer survey there was significant negative media coverage about the NZP in New Zealand. The coverage related to the sexual conduct of a senior police officer.52

Table 6.1 presents the results from my survey after multivariate analysis of variance (MANOVA) tests, which examined the relationship between officers’ self-reported view of media coverage and whether they worked in a strong or weak innovation uptake area.

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52 This coverage included the Commission of Inquiry into Police Conduct (http://www.cipc.govt.nz) and the related trials of a police assistant commissioner and former officers for sexual offending.
As Table 6.1 shows, no statistically significant differences were reported between any of my research sites. Officers held similar views about the media across strong and weak ILP uptake sites. This shows that media relations were not a factor influencing the uptake of ILP innovation in New Zealand.

My in-depth interviews with key respondents from local media pointed to positive relationships with police at three of my four sites. The exception, Kea, suggested a troubled relationship. Key respondents reported a tense relationship with the local newspaper, and when I approached representatives from the paper they refused to be interviewed by me. Due to this refusal I was unable to fully investigate the difficulties with this relationship. Despite this tension officers stationed at Kea did not report any statistically significant differences in media relationships. Both my survey findings and the broadly positive reports about local media relations at sites other than Kea confirm that media coverage was not an important factor influencing the adoption or lack of adoption of ILP innovation in New Zealand.

### 6.3 Local government

The extent to which police have a positive relationship and work collaboratively with local government is likely to be important in supporting the

<table>
<thead>
<tr>
<th>Table 6.1: Media relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>9.94</td>
</tr>
<tr>
<td>10.01</td>
</tr>
<tr>
<td>9.76</td>
</tr>
<tr>
<td>9.75</td>
</tr>
</tbody>
</table>

F = .604 df = 3 p < 0.613 Partial Eta Squared = .006; * = p < 0.05 ns = not significant
uptake of innovation. This is particularly true of ILP innovation that focuses on crime reduction and promotes external partnerships as important in achieving crime reduction goals (Ratcliffe, 2003). The relationship between police and local government is an important one for police areas in New Zealand. While police have no direct or financial accountability to local government, police are expected to work closely with local authorities (New Zealand Police, 2002).

My officer survey tested officer views on police and local government relationships across my four research areas. My survey asked officers how closely their area worked with local government, how much local government supported local police, and about the quality of the relationship. Table 6.2 presents the results of my survey after MANOVA tests, which examined the relationship between officer perception of the quality of the police local government relationship and whether the officers worked in a strong or weak uptake police area.

Table 6.2: Local government

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.03 1</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
<td>.000*</td>
</tr>
<tr>
<td>8.96 2</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
<td>.000*</td>
</tr>
<tr>
<td>8.49 3</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
<td>.037</td>
</tr>
<tr>
<td>7.87 4</td>
<td>.000*</td>
<td>.000*</td>
<td>.037</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 12.948 df = 3 p < 0.000 Partial Eta Squared = .121; * = p < 0.05 ns = not significant

As Table 6.2 shows, officers at strong uptake sites Mātātā (M = 9.03, p = .000) and Takahē (M = 8.96, p = .000) and weak uptake site Hihi (M = 8.49, p = .037) all reported a stronger relationship with local government than did officers at weak uptake site Kea (M = 7.87).
My results demonstrate that officers at the two strong uptake sites viewed their police area’s relationship with local government as stronger than that at the weak uptake site Kea. Officers at weak uptake site Hihi also viewed their local police area as having a stronger relationship with local government than did officers at Kea. I hypothesised that officers at strong uptake sites would view their local police area as having a stronger relationship with local government than weak uptake areas. This hypothesis is partially supported. However, the finding that officers at weak uptake site Hihi also viewed their relationship with local government as strong confounded my hypothesis. Drawing from my interviews with key respondents, I examine the relationship with local government in more depth. I address the following questions. What features of strong uptake sites supported a strong relationship with local government? Was there anything different about the relationship with local government at weak uptake sites? How did the quality of the relationship between police and local government impact on the uptake of innovation in New Zealand? Did the uptake of innovation influence the relationship between police and local government?

My interviews with key respondents at strong uptake sites pointed to high quality relationships between local police and local government. Local government partners reported model or exemplary relations with police. The community worker at Mātātā, for example, describes how the relationship between local government and police at Mātātā was considered “desirable” by other police areas.
Local government community worker Mātātā:
Um, we’ve always prided ourselves here on the relationship between the police and the council here. We’ve always um, skited\(^{53}\) around the country and ah, that the police and the district council get on so well and work so cooperatively and in fact I understand you know, it’s looked upon as um, quite, quite a, a desirable um, relationship by even police around the country …

The relationship between local government and police also focused on a partnership that supported the goals of ILP. At strong uptake areas police and local officials worked in a variety of ways to support local crime reduction. This paid dividends at the political level with crime reduction results reinforcing the relationship between police and local government. The area commander at Mātātā notes the benefits of positive crime reduction results to the ongoing relationship.

Area Commander Mātātā:
they love councillors and politicians, they love good news.

D: Hmm.

R: And we were delivering um, crime reductions you know, report after report. We couldn’t do much wrong as far as they’re concerned ‘cause they all said it was the wonderful work they were doing and of course the wonderful relationship they had with Mātātā police that these things happened and, and if they wanted to be then I was quite happy with that cause it worked for both of us we kept getting the co-operation from the officers [local government] so.

The clear goal of ILP is crime reduction and prevention (Ratcliffe, 2003). If ILP successfully delivers crime reduction then this can positively influence relations with key politicians, local government and others in the local community. The area commander at Mātātā reports that ILP delivered crime

\(^{53}\)‘Skited’ was the word the interviewee used when describing travelling around the country.
reduction results and this had a very positive impact on the relationship with local government. As the area commander at Mātātā stated, “we couldn’t do much wrong as far as they’re concerned”. The interview evidence suggests that strong ILP uptake at Mātātā helped secure a quality relationship with local government, which in turn reinforced the process of innovation uptake.

Overall, my interviews showed that strong ILP uptake encouraged the development of a strong relationship with local government. Ratcliffe’s (2003) 3I model focuses police on crime reduction goals and encourages partnerships as a key strategy to support crime reduction goals. Success in achieving crime reduction goals encouraged political support for police and ILP.

My officer survey findings reported that officers at weak uptake site Hihi had a significantly stronger relationship with local government than officers at weak uptake site Kea. To explore this finding I first compared the means for the factor local government by officer category to see if there were any differences in officer views of local government at Hihi. Differences were apparent, so I tested them to see whether they were significant, using an independent samples t-test. The significant results that emerged are presented in Table 6.3.

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54 Discussed in Chapter 1.
As Table 6.3 shows, general duties officers from Hihi (M = 8.23) viewed the relationship with local government less favourably than community constables (M = 9.00, p = .002) and youth aid officers (M = 9.00, p = .002). Hihi-based non-supervisory officers (constables and detectives) (M = 8.42) viewed the relationship with local government less favourably than supervisory officers (sergeants) (M = 9.00, p = .001).  

These results also show that supervisors and community and youth aid officers viewed the relationship with local government as better than general duties officers’ view of the relationship. This suggests that good relations with local government were emerging or existed at Hihi, particularly among supervisors and youth and community-focused officers. It is logical that officers such as youth and community officers, whose role encompasses a community partnership focus, would be more sensitive to improvements in local government relations. Likewise, supervisors, who might have portfolio

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55 By way of contrast I also reviewed officer category group means for all other police sites. Results for Kea are presented later in this section. There were no significant differences between officer groups at strong uptake sites. All officer categories at Takahē and Mātātā reported similarly high means for the quality of relationship with local government.
responsibilities for community projects, would also be more sensitive to positive changes in the relationship with local government. These roles require officers to engage more with local government representatives. If relationships were improving, it is reasonable to expect that these officers would detect that improving relationship first.

As part of my interviews with key respondents I interviewed the mayor at Hihi. The mayor described partnership initiatives between local police and local government and reported an improving relationship. These initiatives included alcohol and safety-focused initiatives as well as neighbourhood safety programmes. However, when I delved into the relationship problems surfaced. A key respondent community worker at Hihi suggested that local police did not appreciate or understand community work. The worker stated that local police considered law enforcement the way to deal with community problems and were not thinking more broadly about how problems might be addressed. Officers communicated negative sentiments to the worker.

Local government community worker Hihi:

R: I don’t think um, um, how can I put this, um, I think there is still quite a big element of it being sort of, um, a lot of boys club, and we’re here to fix it and you don’t know anything, and you don’t know what you’re talking about, and I had someone say you should put a uniform on, you know, and I sort of responded and said, no blue’s not my colour, so I guess sometimes it’s disappointing when I guess, I make the assumption that whoever it is the personalities that I’m dealing with have a handle on what it is that I do.

D: Um.

R: You know I’m not about enforcement; I’m about designing the projects and programmes to put back into the community, that’s what I do.

D: Um.

R: And I think, I don’t think that’s fed through.
Overall, these results demonstrate an emerging relationship between police and local government at Hihi. There is evidence of partnerships between police and local government. However, there is also evidence that the relationship is enforcement focused and police-centric. These results suggest that an emerging or strong relationship with local government is not strongly associated with the uptake of innovation, particularly if that relationship is narrowly focused on police solutions to community problems.

I also investigated the distribution of results for the factor local government at weak uptake site Kea. At Kea the pattern of results was different. The results of this review are presented in Table 6.4. General duties officers (M = 8.16) reported significantly better community relations than detectives and investigators (M = 7.04, p = .002). Also officers who were previously employed in professional occupations (M = 7.06) reported significantly worse local government relations than officers who were previously employed in non-professional occupations (M = 8.07, p = .035).

**Table 6.4**: Kea area t-test results: officer categories – local government

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Degree of freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>General duties</td>
<td>47</td>
<td>8.16</td>
<td>1.51</td>
<td>28</td>
<td>.002</td>
</tr>
<tr>
<td>Detective, investigator</td>
<td>15</td>
<td>7.04</td>
<td>1.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>13</td>
<td>7.06</td>
<td>2.10</td>
<td>75</td>
<td>.035</td>
</tr>
<tr>
<td>Non-professional</td>
<td>64</td>
<td>8.07</td>
<td>1.43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6.4 shows that while overall reports on the relationship with local government at Kea were lower, detectives in particular reported a much weaker relationship with local government. As I reported in Chapter 5, there was evidence of resistance to change in the Criminal Investigation Branch (CIB) at
Kea, and the finding that detectives reported a weak relationship with local government is related to that resistance to change.56

The observations of key informants supported the finding of a weak relationship with local government. The community worker at Kea noted both a lack of planning ahead and deficiencies in the depth and density of the relationship. The interpersonal contact on a day to day basis was lacking.

_**Local government community project worker Kea:**_

R. Oh yeah, yeah without doubt it could be better, and that’s um again, its like, It comes down to personalities that, on down the food chain.

D. Yeah.

R. What’s up, higher up the food chain, you know, there’s those relationships, phone calls, and things like that, but there’s no planning, no joint planning and, ah, there’s, its often after the fact, eleventh hour, knee jerk reaction, there will be calls for help. Well with that better relationship at the top, and better planning at the top, um, yeah, there could be far more achieved.

An additional background factor needs to be considered in regard to the relationship between local government and local police at Kea. At Kea there was an active dispute between local police and local government. The local mayor sited the dispute as the reason for declining to be interviewed by me. Officers at Kea were well aware of the dispute. It is possible this dispute penetrated the minds of officers and this extraneous variable accounts for the observed differences between Kea and my other research sites for this variable. The area commander at Kea asserted that the local police “have an excellent

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56 The reported difference between officers previously employed as professionals and non-professionals is more difficult to interpret. It may be that officers with professional backgrounds had higher expectations for the relationship and the finding represents disappointment with the actual relationship. Officers with no professional background may have had little to compare the relationship with. This is somewhat speculative and I make no firm conclusion about this finding.
working relationship with the council, other than [the issue in dispute]”. I will not describe the issue in detail to preserve the anonymity of respondents, but it was civil in nature and did not relate to policing.

My research points to better relationships between strong ILP uptake sites and local government. Managers at strong uptake sites recognised the value of a sound relationship with local government and worked with ILP to support the development of that relationship. The district commander at Takahē described the focus on local government cooperation as “partnering for purpose”. Police were strongly motivated to maintain and develop the relationship with local government because of the support that relationship provided to achieving ILP crime reduction goals. The relationships at strong uptake sites were purposeful and focused. In contrast, poorer quality and less focused relationships were evident between police and local government at weak uptake sites. Evidence suggested an emerging relationship between police and local government at Hihi. However, the relationship was not a consequence of ILP uptake and was biased towards enforcement activities. Officers at Kea reported the weakest relationship with local government, possibly due to an active dispute with local authorities.

It is possible that at strong uptake sites a quality relationship with local government existed before the adoption of ILP and existing relationships supported the uptake of ILP innovation. A strong relationship with local government may have been an important precursor to ILP rather than emerging as ILP developed. My research is not able to draw a final conclusion on this point. It is clear that ILP innovation uptake and local government strongly interacted to consolidate ILP uptake. Successful crime reduction supported the
relationship and ILP focused and energised the relationship between police and local government. My research clearly establishes a relationship between strong ILP uptake and purposeful crime reduction focused relationships with local government.

The police–local government relationship is a foundation for general policing, and my results show the relationship is important to the development of ILP. Local government is a key partner in crime prevention and problem-solving in local communities and a vital partner in ILP innovation. My results show how strong ILP uptake promoted a strong relationship with local government. Crime reduction goals focused the relationship, and crime reduction results reinforced the relationship, enabling local politicians to make political capital from the relationship with police. Findings across my four research sites show that the police–local government relationship can take a variety of forms from weak and somewhat antagonistic to emerging but unfocused to exemplary. Strong ILP uptake was clearly associated with positive and focused local government relations.

6.4 Police unions

Police unions are noted in the police literature as a potential barrier to innovation and change (Finnane, 1999; Goldstein, 2003; Kadleck, 2003; Magenau & Hunt, 1996; Walker, 2008). Kadleck (2003) notes police unions as obstacles to police management and policy implementation. Magenau and Hunt (1996) found police unions to be associated with greater emphasis on the law enforcement component of policing rather than service delivery and community relations.
The New Zealand Police Association (NZPA) is the police union in New Zealand. The NZPA has a strong following and is prominent in national politics, particularly in pursuit of better pay and conditions for its members (McGill, 1992). The history of the NZPA demonstrates that it is progressive by police union standards. McGill (1992) reports the NZPA was responsive to community policing in the 1980s. More recent evidence suggests the NZPA is interested in participating intelligently as part of any NZP reform process (Berry, O’Connor, Punch, & Wilson, 2008). This position is consistent with recent research findings demonstrating that unions have both an interest in and the capacity to support the development and reform of policing (Marks, 2007). The president of the NZPA says the association wishes to contribute to the future of policing (O’Connor, 2004).

In this section I explore officer views on the influence of the police union across my four NZP research sites. My survey asked officers about collaboration between the local police union and the area commander and wider police management. I also examined the extent to which the influence of the union contributed to or inhibited the adoption of ILP practices. Using the multivariate analysis of variance test Table 6.5 presents the results from my survey exploring officer perceptions about the influence of police unions and whether or not they were important in supporting or hindering the uptake of ILP.

Table 6.5: Police unions

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.88</td>
<td>3</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>5.94</td>
<td>1</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>5.89</td>
<td>2</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>5.76</td>
<td>4</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>
As Table 6.5 shows, no statistically significant differences were reported between any of my research sites. Officers reported similar experiences concerning cooperation between local management and local union representatives.

Consistent with my survey findings, my interviews with key respondents did not reveal any issues regarding challenges from the NZPA to ILP or any organised union activity against ILP. There was limited commentary from key respondents about the NZPA. For example, no police managers noted obstruction from police unions impacting on the uptake of innovation. What was offered from key respondents tended to cast the union in a positive light. For example, a key senior sergeant from Takahē described how his involvement with the NZPA had exposed him to “strategic thinking”.

**Key senior sergeant 1 Takahē:**

… so policing networks um, are um, and, and I’ve also been involved in the Police Association to um, to directors and so that’s given me um, ah, some exposure if you like to strategic thinking and that sort of thing.

While police unions overseas are portrayed as obstructive to police innovation and change (Finnane, 1999; Goldstein, 2003; Kadlec, 2003; Magenau & Hunt, 1996; Walker, 2008) this is not the case in New Zealand. At the local area level the NZPA did not facilitate or hinder the uptake of ILP innovation. My research findings demonstrate that police unions were neutral with regard to innovation uptake. This absence of opposition is likely to improve the chances of innovation taking hold overall in New Zealand. There is no evidence that the activity of the union was a factor supporting or hindering the
uptake of innovation at any of my research sites. While many features of the NZP are comparable to those of overseas police agencies, in regards to the role and activity of police unions there appears to be divergence.

6.5 Community relations

The quality of the relationship between police and their local community is critical to maintaining police legitimacy and delivering effective policing. A crisis in this foundational relationship will, almost certainly, create major problems for police (Crank & Langworthy, 1992; Moore et al., 1999). Concerns over political or fiscal problems, the effectiveness of crime control, and the general quality of police community relations can all lead to a crisis between police and their local community (Moore et al., 1999). Given the centrality of this relationship, the quality of local community relations is likely to be an important influence on the innovation process. Good relations may give police space to innovate and change. Poor relations are likely to undermine the ability and willingness of police to change.

My survey examined officer views on the quality of local police community relations at my research sites. My survey tested officer views on relations with minority groups, support for police among the community, and officer views on the willingness of the public to assist with solving crimes. I used these survey results to explore how the quality of police community relations contributed to the adoption of ILP practices at my research sites. Using the multi-variate analysis of variance test, Table 6.6 presents the results of my officer survey.

Table 6.6: Community relations

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.88</td>
<td>3</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
</tbody>
</table>
As Table 6.6 shows, no statistically significant differences were reported between officer views of community relations at any of my research sites. My interviews with key respondents supported my officer survey findings. Unfortunately, I was not able to fully assess community relations at Kea due to difficulties in accessing community representatives. This was because the local mayor decided not to be interviewed by me due the dispute between Kea and local police over a civil matter. Further, the local iwi (tribal) representative avoided meeting with me. However, I was able to interview the local community worker to give me a perspective on the relationship.

Respondents from community groups reported positive relations with police across all my operational police research sites. Iwi representatives reported positive relations with police. Comments from local mayors, community workers and media personnel described generally positive relations between police and community. Typical of Māori representatives, was the tribal elder from Mātātā. He commented on an improved relationship with police, noting how police would go out of their way to pay respect to local tribes on the death of prominent tribal members. Ensuring high quality relationships with Māori is a key strategic goal of the NZP (New Zealand Police, 2002).
Iwi representative Mātātā:

other funerals even then, even just a local around here and you get our police down here, they’re here on our marae\(^{57}\) down here, you know to bring to bring their respect and, and that’s good.

D: Right.

R: That’s good for our people aye, for our kaumātuas\(^{58}\) and when we see our police coming in you know to pay their respect oh, list …, he, he, he, he just, he just, you never see those things 20 years ago, but oh, it’s just fantastic. Everything’s, everything’s just changed you know.

The editor of the local newspaper at Hihi made a general comment about the quality of local policing, which summarises my findings.

Editor local newspaper Hihi:

I have to say that as a citizen, as a resident of Hihi I, I have no complaints or nothing, no quibble at all with the standard of policing.

Overall, I was unable to distinguish any differences in the nature of general community relations from my interviews with key community respondents across my research sites. All key respondents spoken to reported positive relations with their local police. My interview data supported my survey findings. Positive community relations seemed to be a typical background feature for police areas in New Zealand. I could not distil any evidence of differences in general community relations across my research sites, so I conclude that general community relations did not impact on uptake of innovation in New Zealand.

\(^{57}\) Marae – a gathering place and community centre for local Māori.

\(^{58}\) Kaumātua – Māori elder.
6.6 Input demand

Demand for police services is an important factor impacting on police behaviour. High demands on police can lead to defensive police behaviour and police developing more-complex and more-formalised structures (Maguire, 2003; Wells, Falcone, & Rabe-Hemp, 2003). Environmental pressures such as high input demand can stimulate innovation but can also lead to avoidance and efforts to shore up organisational boundaries to cope with demand (Rogers, 2003). The demand for police services can lead officers to feel they are overloaded with work, as also happens for others at the front line of the public service. This sense of overload can drive self-protective officer behaviour and shape the kind of simplifications and shortcuts officers use (Lipsky, 1980; Sparrow, 2000; Wells, Falcone, & Rabe-Hemp, 2003). Perceptions of an overly large workload could lead officers to reject innovation as simply too much work on top of existing duties.

My research explored the impact of input demand on the uptake of innovation in New Zealand. ILP uptake may be influenced by demand or perceived demand for police services. The uptake of ILP may also impact on demands or the perception of demands by officers. I tested officer views on input demand by asking officers about their perceptions of the general level of crime and disorder within their police area, how busy they perceived they were, and the extent to which they used shortcuts to cope with their work.

Table 6.7 presents the results from my survey after MANOVA testing, which examined the relationship between officer self-reports of local demand for police services and whether or not they worked in a strong or weak uptake area.
Table 6.7: Input demand

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.78 2</td>
<td>x</td>
<td>.000*</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>7.74 4</td>
<td>.000*</td>
<td>x</td>
<td>.017</td>
<td>.000*</td>
</tr>
<tr>
<td>8.47 3</td>
<td>ns</td>
<td>.017</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>8.88 1</td>
<td>ns</td>
<td>.000*</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 10.521  df = 3  p < 0.000  Partial Eta Squared = .101;  * = p < 0.05  ns = not significant

As Table 6.7 shows, officers at weak uptake sites Kea (M = 8.88, p = .000) and Hihi (M = 8.47, p = .017) reported significantly higher input demand than those at strong uptake site Takahē (M = 7.74). Officers at strong uptake site Mātātā (M = 8.78, p = .000) also reported higher input demand than those at strong uptake site Takahē (M = 7.74).

I hypothesised that strong uptake sites would report lower input demand than weak uptake sites due to the uptake of ILP. I proposed that the strong uptake of ILP would rationalise the criminal environment and leave officers with a view of manageable local crime problems, reduce the sense of feeling overwhelmed by crime problems, and reduce the perceived need to use shortcuts to cope with work. My hypothesis was partially confirmed with strong uptake site Takahē reporting significantly less input demand than officers at weak uptake sites. However, the result was confounded by the finding that officers at strong uptake site Mātātā also believed they were subject to significantly more input demand than officers at Takahē. Several questions arise from these findings. Were there differences between strong uptake sites Takahē and Mātātā that might account for the observed differences in officer reports of input demand? Were there features of weak uptake sites that
contributed to officers perceiving greater input demand? Are there any implications of this finding for the uptake of ILP innovation in New Zealand?

To explore these findings further, Table 6.8 summarises the changes in reported crime between 1995 and 2006 at my research sites. The data were explored in depth in Chapter 4. Table 6.8 shows that reported crime per officer at my research sites was similar in 1995. Mātātā reported the most crime per officer in 1995 (10.46 offences per month per officer) but this had deceased sharply in 2006 (4.99 offences per month per officer). By 2006 reported crime per officer had bifurcated with strong uptake sites reporting much lower levels of reported crime per officer and weak uptake sites reporting much higher levels. Of note is the fact officers at Mātātā who reported high input demand were subject to the lowest crime-driven demand for police services in 2006.

**Table 6.8: Number and average of offences per month 1995-2006**

<table>
<thead>
<tr>
<th></th>
<th>N officers</th>
<th>Mean per officer 12 months to June 1995</th>
<th>Mean per officer per month 1995</th>
<th>N per officer eligible 12 months to June 2006</th>
<th>Mean per month 12 months to June 2006</th>
<th>N per eligible officer 12 months to June 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mātātā</td>
<td>85</td>
<td>597.20</td>
<td>10.46</td>
<td>424.08</td>
<td>7.03</td>
<td>4.99</td>
</tr>
<tr>
<td>Takahē</td>
<td>91</td>
<td>688.87</td>
<td>8.30</td>
<td>516.83</td>
<td>7.57</td>
<td>5.68</td>
</tr>
<tr>
<td>Hihi</td>
<td>80</td>
<td>714.16</td>
<td>10.08</td>
<td>726.92</td>
<td>8.92</td>
<td>9.09</td>
</tr>
<tr>
<td>Kea</td>
<td>121</td>
<td>852.90</td>
<td>7.71</td>
<td>812.67</td>
<td>7.05</td>
<td>6.72</td>
</tr>
</tbody>
</table>

I noted in Chapter 4 my ability to analyse area crime data was limited by the lack of accurate commencement dates for the uptake of ILP. ILP was

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59 Relates to financial years 1994/95 – 2005/06
introduced unevenly or evolved organically. In spite of this I was able to reach broad conclusions. The strong uptake of ILP innovation was associated with much steeper decreases in reported crime than those reported at weak uptake sites. ILP appears to accelerate crime reduction trends. This finding is consistent with evidence pointing to the effectiveness of more focused policing strategies (Mazerolle, Rombouts, & McBroom, 2006; National Research Council, 2004; Weisburd & Eck, 2004). My research leads me to infer that one impact of strong ILP uptake on the environment is a reduction in crime-driven input demand as a consequence of more focused policing.

Figure 6.1 provides a simplified presentation of my findings for the factor input demand. The figure plots officer perception of input demand against crime driven demands. Figure 6.1 shows graphically that officers at weak uptake sites reported high input demand and experienced more crime-driven demand than officers at strong uptake sites. Officers at strong uptake site Mātātā, however, reported high overall input demand while crime-driven demand was low. Officers at strong uptake site Takahē reported low input demand and experienced low crime demand.
Figure 6.1: Officer perceived input demand compared with actual crime demand, 2006

The first important point to consider is that when I conducted my research (2006) my research sites were at different stages in the uptake of innovation. They were at different stages of the innovation life cycle. The innovation literature describes how successful innovations diffuse within a social system following an S-shaped curve. So “when an organisation’s adoption of an innovation is plotted over time, the cumulative distribution of adopters usually forms an S-shaped curve” (Rogers, 2003, p. 275). Initially a few organisations adopt, with numbers building slowing over time. This is followed by a middle period of rapid adoption, and concludes with late adopters filling the tail of the S. The organisations adopting at different stages typically have different qualities. Early adopters are more venturesome, middle-stage adopters more deliberate or sceptical, laggards more traditional (Rogers, 2003). As with much innovation research, care must be taken when looking at real world examples. Adopter
Intelligence-Led Policing in New Zealand

categories are ideal types and patterns of diffusion depend on characteristics of leaders, the social system, the innovation and the organisation itself (Rogers, 2003).

Mātātā was an innovator or early adopter of ILP innovation (Rogers, 2003), moving to adopt before other sites in New Zealand. My other research sites, Takahē, Kea and Hihi, were middle-stage adopters (Rogers, 2003), moving or endeavouring to adopt ILP when most other NZP sites moved. Key respondents reported that environmental factors, including crime-driven demand for police services, were important in the uptake of innovation at Mātātā. According to a key senior sergeant respondent at Mātātā, the community was in “deep trouble”, and key police and community leaders at Mātātā decided to try to do something about the crime and economic challenges before the community. The innovation literature notes that environmental pressures can drive innovation (Rogers, 2003), and the National Research Council (2004) describes how a confluence of problems and solutions can give rise to police innovation. A key senior sergeant respondent from Mātātā describes what happened.

*Key senior sergeant Mātātā:*

… so by the late 1990s Mātātā as a community was in deep trouble. I think in terms of the social deprivation indicators Mātātā was probably the second poorest community in New Zealand. … so you had a collection of, of people such as [judge], [local prison manager], we had the police staff here, we had council staff [name] and a number of others who collectively realised that without working collaboratively with other partners Mātātā um, was only going to see a further..., a further reduction, in their standards of living and increases in crime.

Importantly, my strong uptake sites were at different stages of ILP development; Mātātā was more mature, Takahē was developing. However,
both sites reported that a consequence of ILP uptake was an increase in demands on officers to complete proactive tasks. There was an expectation that officers at strong uptake sites would perform ILP-related proactive tasks. When asked how busy his staff were, the area commander at Takahē recalled a conversation with one of his officers. The officer attributed some reduction in his crime-related workload to ILP, but went on to describe being busier overall due to proactive ILP tasks.

*Area commander Takahē:*

Um, the, the, I don’t think they’re, well we’ve incrementally reduced crime so that we’re, we’ve actually ah, we’re actually reducing the amount of work. But, ah, I, I spoke to a cop in ah, Massey\(^{60}\) and we’ve, we’ve had some really good results over there and, and reduction in crime and he’s saying he’s feeling busier now with the proactive work than what he was when he was just going around taking ORs.\(^{61}\) So ah, it’s sort of ah, debatable about how, how busier you are and how, how, how, how you aren’t busy.

This quotation illustrates an important consequence of ILP for officer workload: properly implemented, ILP increases work-related demands on officers. The area commander describes a substitution effect where crime reduction decreases in officer workload were replaced by increases in demands for proactive ILP tasks. A similar effect was evident at Mātātā. The area commander at Mātātā describes increases in proactive workload over time for officers. As ILP developed at Mātātā the demands on officers to perform more proactive tasks increased. The commander describes how officers were required to do “lots of work that they weren’t doing before”.

*Area commander Mātātā:*

… like we push a lot of practice stuff on them, like when they’re doing 250 bail checks a week which is what they were doing when I left 200, 250 was

\(^{60}\) Pseudonym  
\(^{61}\) ORs – offence reports.
your average week and um, that’s a lot of work they weren’t doing before. The, the trade off and I mean it worked on 250 odd once we started 50 and 70 and 100 and um, built that up slowly once we convinced staff they’re worth a bit …

I noted in Chapter 5 that strong uptake sites were continually innovative and one expression of that ongoing innovation was a focus on improving the performance of officers in ILP-focused proactive tasks. A plausible explanation for the observed differences in input demand between Takahē and Mātātā is the impact of ILP innovation over time. At Mātātā ILP had been developing and improving for nearly a decade. As ILP matured at Mātātā, expectations of officer performance of ILP proactive tasks rose. Conversely, my results indicate that officers at Takahē were still experiencing the early benefits of crime reduction due to the uptake of ILP, which reduced their overall workload. While both sites reported low crime rates, other factors impacted on officer perceptions of input demand. My results suggest that officers at Mātātā were experiencing a more mature version of ILP with greater demands on officers to complete proactive tasks. These higher demands were a consequence of the development of ILP. As ILP matures at Takahē, I would expect to see officer perceptions of low input demand move into the high category, as increasing demands are placed on them to perform ILP-related tasks.

The innovation literature suggests that high demand can drive shortcuts, simplifications and avoidance behaviour from officers (Lipsky, 1980; Sparrow, 2000; Wells, Falcone, & Rabe-Hemp, 2003). Officers who feel overwhelmed are unlikely to be enthusiastic adopters of ILP. As Figure 6.1 illustrates, officers at both weak uptake sites reported high input demand and were experiencing higher levels of reported crime than their colleagues at weak uptake sites. This
suggests that high crime-driven input demand is a barrier that police organisations wishing to adopt ILP need to overcome. The move from input demand being heavily crime focused to a greater mix of crime and proactive tasks needs to be negotiated. My research suggests the strong uptake of ILP innovation can reduce crime-related workload but adds significant increases in proactive tasks, leaving officers still experiencing high levels of input demand.

Reported crime data at my research sites show that crime rates have varied considerably over time. The uptake of ILP appears to support crime reductions and shifts the make-up of overall input demand for officers from reactive and crime driven to proactive and less crime driven. A difficulty for weak uptake sites endeavouring to adopt ILP is negotiating this transition to a proactive mindset among officers, particularly when officers already perceive high input demand. The area commander at Kea describes how he tried to encourage more proactive ILP behaviour among his officers but perceptions of “busyness” inhibited this process. The commander notes that his officers were “busy” and just starting to see that prioritising ILP tasks might payoff for them, that “we can actually do that instead of what we think is busy”. The commander notes officers were just starting to see that tactics team recommendations are “probably … going to work”.

*Area Commander Kea:*

... so as they were busy in, in fact I believe they’re still extremely busy but they’ve, ah, they understand the prioritising of what um our tactics team say is probably, ah, going to work and now we’re slowly getting to yes, we can, we can actually do that instead of what we think is busy.

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62 Tactics team is a an alternative title for the local Intelligence Unit
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For officers to support ILP they need to have confidence in its utility. Officers at high uptake sites supported proactive ILP policing strategies and, as the area commander at Takahē notes, experienced reductions in crime-driven input demand. As ILP matures, it keeps officers busy, but busy with a mix of proactive and reactive tasks. At weak uptake sites officers struggled to perform and prioritise ILP tasks. As the area commander at Kea describes, officer perception of high levels of input demand and being “busy” was a barrier to prioritising ILP.

Input demand, along with other environmental factors, was important to stimulating the early adoption of innovation at strong uptake site Mātātā. At weak uptake sites input demand failed to stimulate innovation and left officers feeling unable to support ILP uptake. This illustrates the sometimes contradictory effect of environmental factors on innovation uptake and supports the suggestion in the innovation literature that environmental pressures can have mixed effects on innovation uptake and interplay with organisational factors in complex ways (Kimberley & Evanesko, 1981; Rogers, 2003; Slappendel, 1996). At strong uptake sites a transition had taken place (Mātātā) or was taking place (Takahē) from demand driven by external factors such as crime to one that included major ILP-driven components such as proactive policing tasks.

The differences in officer perception of input demand at strong uptake sites are explained by the differences in ILP maturity at the two sites. At mature sites officers had moved from a reactive to a proactive approach to their work. Officers at Mātātā were subject to higher input demand due to the process of continuous innovation increasing the quantum of proactive tasks expected from
and performed by them. Demand from the environment both stimulated and impeded innovation. ILP innovation reduced demand from the environment but ensured officers remained fully employed performing proactive tasks. Getting officers to transition from a reactive to a proactive mindset was important to the uptake of innovation in New Zealand.

6.7 Environmental complexity, environmental stability and neighbourhood factors

I now turn to the influence of more general environmental factors on the uptake of ILP innovation in New Zealand. In particular, I evaluate whether environmental factors influenced the thinking of officers to impede or enhance the uptake of innovation. I also assess whether the uptake of innovation changed the way officers thought about the impact of environmental factors. My research develops from the general to the specific. I first assess the impact of general perceptions of the environment, then the influence of local neighbourhood factors.

Environmental stability describes the overall stability of the police operational environment. Maguire (2003) defines environmental stability as the level of stability in resources, population, political arrangements, racial configurations and community relations. Environmental stability is close in definition to environmental complexity. Complexity is concerned with the breadth of factors police are expected to address while stability is concerned with the pace of change. Maguire (2003) proposes that environmental instability causes police to react to limit the influence of unstable factors by creating structural complexity, vertically and functionally, and developing more physical and administrative centralisation.
The socio-economic environment impacts on police behaviour in a variety of ways. Socio-economic factors such as levels of inequality, urbanisation, population heterogeneity, social disorder and racial make-up can both directly influence police behaviour and shape the organisational characteristics of police organisations (Crank, 1990; Maguire, 2003; Smith, 1986). For example, more ethnically diverse environments can influence arrest rates (Crank, 1990; Smith, 1986) and more complex environments can trigger more complex internal police structures (Maguire, 2003).

Environmental factors can interact with innovation unpredictably. On the one hand, more heterogeneous environments can stimulate innovation (Baldridge & Burnham, 1975) with large organisations being more responsive to environmental pressures and changes (Rogers, 2003). On the other hand, complex environments can hamper the ability of organisations to focus on innovation, hinder communication between organisations and constrain the adoption of innovation (Slappendel, 1996).

Neighbourhood context is an important factor impacting on officer behaviour. Neighbourhood stability and racial heterogeneity have been shown to influence detection behaviours (Kania & Mackey, 1972; Klinger, 2004; Riksheim & Chermak, 1993; Smith, 1986; Worden, 1989). Smith (1986) found racial characteristics and neighbourhood crime rates influenced officer behaviour with officers employing higher thresholds when making arrest decisions in neighbourhoods with high crime rates. Klinger (1997, 2004) concluded that officers categorised crime according to neighbourhood context with higher crime rate neighbourhoods requiring more deserving victims than were required in low crime rate neighbourhoods before the police decided to
arrest. Neighbourhood context may make officers reluctant to undertake innovation-related behaviours in some neighbourhoods and cause officers to perform those behaviours unevenly or inappropriately. If differing norms operate in local police areas, innovation could be undermined or resistance could come into play.

I tested officer views on environmental complexity, environmental stability and the influence of neighbourhood factors across my four NZP research sites. I then used these results to explore the impact of these factors on the uptake of innovation. I tested environmental complexity by asking officers about ethnic groups, differences between rich and poor communities, overcrowding and the ability of communities to cope with problems. I explored environmental stability by asking officers about the stability of local communities, the movement in and out of local communities, population growth and the impact of economic changes.

Table 6.9 presents the results from my survey after MANOVA testing, which examined the relationship between officer self-reports of local environmental complexity and whether or not they worked in a strong or weak uptake police area.

**Table 6.9: Environmental complexity**

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.70</td>
<td>2</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>10.32</td>
<td>4</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
<td>.001*</td>
</tr>
<tr>
<td>10.65</td>
<td>3</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>11.15</td>
<td>1</td>
<td>ns</td>
<td>.001*</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 4.939  df = 3  p < 0.002  Partial Eta Squared = .050;  * = p < 0.05  ns = not significant
Table 6.9 shows officers at strong uptake research site Takahē (M = 10.32) reported significantly lower environmental complexity than those at weak uptake site Kea (M = 11.15, p = .001). No other statistically significant differences were reported.

Table 6.10 presents the results from my survey after MANOVA testing, which examined the relationship between officer self-reports of local environmental stability and whether or not they worked in a strong or weak uptake police area.

Table 6.10: Environmental stability

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.42</td>
<td>3</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>10.46</td>
<td>4</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
<td>.026</td>
</tr>
<tr>
<td>10.28</td>
<td>3</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>9.78</td>
<td>1</td>
<td>ns</td>
<td>.026</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 3.509   df = 3   p < 0.016  Partial Eta Squared = .036;  ∗ = p < 0.05  ns = not significant

Table 6.10 shows that officers at strong uptake research site Takahē (M = 10.46, p = .026) reported significantly higher environmental stability than officers at weak uptake site Kea (M = 9.78). No other statistically significant differences were reported.

My survey findings show a consistent pattern that officers at strong uptake site Takahē view their environment as more stable and less complex than officers at weak uptake site Kea. Officers at Kea view their environment as less stable and more complex. I hypothesised that officers stationed at strong uptake sites would view their environment as more stable and less complex than colleagues at weak uptakes sites. I reasoned that a consequence of ILP
uptake might be to present the environment as more stable and less complex to officers. I predicted that ILP might provide a lens through which officers could view the environment, particularly the criminal environment, as more understandable. ILP would give officers confidence about their ability to influence the environment (Ratcliffe, 2003, 2008). I hypothesised that rather than officers seeing the environment as acting unpredictably upon them, the uptake of ILP might encourage officers to believe their actions could influence their local criminal environment. In this way officers might hold more positive views about the environment overall and give them confidence about their ability to influence the environment. My survey findings provide partial support for this hypothesis.

Table 6.11 presents the results from my survey after MANOVA testing, which examined the relationship between officer views on the effect of neighbourhood characteristics and whether or not they worked in a strong or weak uptake site. My officer survey tested neighbourhood factors by asking officers about their perceptions of neighbourhood differences, willingness to tolerate minor offending, acceptance of family violence, and concerns about officer safety as well as views on the similarity of local neighbourhoods.

Table 6.11: Neighbourhood factors

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.09</td>
<td>3</td>
<td>x</td>
<td>ns</td>
<td>ns</td>
<td>.029</td>
</tr>
<tr>
<td>9.55</td>
<td>4</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
<td>.000*</td>
</tr>
<tr>
<td>10.13</td>
<td>2</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>10.92</td>
<td>1</td>
<td>.029</td>
<td>.000*</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 7.999  df = 3  p < 0.000  Partial Eta Squared = .078;  * = p < 0.05  ns = not significant
As Table 6.11 shows officers at strong uptake sites Takahē (M = 9.55, p = .000) and Mātātā (M = 10.09, p = .029) reported significantly lower neighbourhood effects than weak uptake site Kea (M = 10.92). No other statistically significant differences were reported.

I hypothesised that officers at strong uptake sites would report being less influenced by neighbourhood factors than officers at weak uptake sites. I proposed two possible reasons for this. As with my hypothesis for environmental complexity and stability I reasoned that ILP might provide officers with a more positive view of local neighbourhoods and their ability to influence local neighbourhoods. Therefore, officers might behave more consistently across all environments rather than feel overwhelmed by the difficulties or perceived norms of some communities or neighbourhoods. The second reason was the direct influence of ILP. Neighbourhood effects might be reduced through officers being provided with recommendations or instructions about actions they should perform in prescribed circumstances or what tasks they should perform at particular locations or in relation to particular individuals. For example, the use of problem or offender profiles with recommended actions might guide officers directly, mitigating or eliminating the influence of neighbourhood factors.

I turn to my interviews with key respondents to explore these issues further and to address three questions. Did my interviews with key respondents provide evidence supporting my survey finding of differences in officer views of environmental and neighbourhood factors across strong and weak uptake sites? Is there any evidence that environmental complexity, stability or neighbourhood factors influenced the uptake of innovation directly? Is there
evidence of ILP uptake influencing officer perceptions of environmental factors or of ILP impacting on these environmental factors?

It was difficult to get clear useful commentary from key respondents about environmental complexity and stability. When asked about their local environment, most respondents described the variety of issues faced by the local police area. These comments were fairly consistent and covered issues such as gang problems, alcohol and drug problems, and domestic violence. Several respondents touched on how issues such as tourism, special events, economic growth and local population changes influenced their work. All could point to deprived local communities and neighbourhoods where policing was particularly challenging and often unrewarding.

Overall, there was evidence supporting my survey findings that officers at strong uptake sites held more positive views about their local environment than officers at weak uptake sites, but the evidence was not strong. This is understandable as officers may have only a general sense of local environmental conditions. They are much more likely to be influenced in their day-to-day work by immediate situational factors such as neighbourhood conditions. Key respondents at weak uptake sites reported more pessimistic views about the local environment generally and the ability of officers to influence the local environment. Officers saw barriers and problems impeding their ability to influence the local environment. For example, when asked about the local environment the sergeant in charge of the Intelligence Unit at Kea stated that officers felt pulled in all directions and were pressured to be “everything to everybody” and felt they needed “more staff”. Officers were
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reluctant to embrace ILP because they felt they were already working as hard as they could.

*Sergeant in charge Intelligence Unit Kea:*

R: Um, cops on the front line believe that they need you know, we need more staff to be everything to everybody, um I think we need to get the communication out there, as to what we are prepared to sacrifice in order to get the gains.

D: Um.

R: And that's where the problem side of things comes into it I've seen, um, you know if we're going to direct into problem solving, we will get the sustainable gains and then create more time and space for the front line.

Expressing a similar sentiment the district commander at Kea described how many of his officers felt there was “no light at the end of the tunnel” when asked about how officers saw the local environment. The commander linked this view with variability in performance amongst local sergeants in supporting the implementing of ILP.

*District Commander Kea:*

R: And you know we’ve had a, um, I guess a one-dimensional approach to it which we are trying to get better on but um it is in a lot of ways a cultural change, ah, for some of our people particularly when they feel that there is no light at the end of the tunnel and so what we are seeing is actually some of our sergeants are actually doing quite well, you know in terms of it, um you know and, and some areas they are not doing so well …

Much stronger were views on local neighbourhoods. Respondents at all research sites pointed to the challenges they faced in dealing with particular local communities and neighbourhoods. At strong uptake sites key respondents reported much more positive views amongst officers concerning their ability to work positively in deprived local neighbourhoods. Interviews with key respondents at weak uptake sites suggested officers were more pessimistic
about their work in low socio-economic, ethnically diverse communities. The community worker at Kea described the relationship between local police and a challenging local neighbourhood. The worker pointed to a “them and us mentality” and suggested the police just wanted to “put a bomb under the place” and “see the place disappear”.

*Local government community project worker Kea:*

R: … so they there was that them and us mentality, sad that when you talk to the police because of that them and us mentality, the ah, often the comment from the police is put a bomb under the place and ah, that is probably more our frustration than anything, but that was the, that the police would sooner just, um, flood the place, you know just sort of see the place disappear …

This attitude can be contrasted with the approach seen at strong uptake sites. The area commander at Mātātā describes how Mātātā tried “different approaches” to working in those “tough areas”. One of the different approaches Mātātā undertook was using volunteers to complete neighbourhood surveys in deprived neighbourhoods. The aim of the surveys was to understand crime problems and provide an evidence base for police actions. The contrast in attitudes towards difficult neighbourhoods was stark. Officers at weak uptake sites were pessimistic about working in difficult neighbourhoods, managers at strong uptake sites were looking to understand problems and develop solutions.

*Area Commander Mātātā:*

….. Are tough areas ah, predominantly Māori ah, just poor, a lot of state housing and ah, tough areas to police. Um, yeah we tried a number of different responses ah, different approaches with those areas um, obviously just doing bail checks have some of those ah, neighbourhoods a whole lot more ‘cause that’s where a lot of our offenders lived. Which was obviously one of the good by products of um, doing bail checks is that we’re in those tough neighbourhoods a whole lot more often.

D: Hmm.
R: Knocking on doors and we did our neighbourhood surveys in those tough areas just to get some um, one-on-one interaction with a lot of the neighbours with us and with our volunteers.

There was also evidence of a more analytical approach to addressing community problems by working closely with community partners at Takahē. A key senior sergeant respondent at Takahē describes how the local police area had a strong relationship with local partners particularly the local council and was well positioned to “drill down” and address those “harder questions” (Key Senior 2 Sergeant Takahē). The harder questions involved wider community issues influencing local crime problems.

*Key Senior Sergeant 1 Takahē:*

But um, but we certainly got we’ve, we’re, we’re well acquainted with one another we know one another, we talk to one another and that’s probably the frustration really that you need to move to the next step which is to um, ah, solve some of those, drill down and solve some of those ah, harder, answers those harder questions and, and issues because the resource, the policing resource in Takahē isn’t going to solve all those problems I just mentioned.

The combination of officer survey findings and interviews with key respondents demonstrates that the uptake of ILP does positively influence officer attitudes towards the environment they operate in. Further, the influence of ILP uptake becomes stronger as the environmental factor becomes more specific and localised. This can be seen in my officer survey findings. Modest contrasts are evident for broad environmental factors (officers at Takahē viewed their environment as less complex and more stable than officers at Kea); clearer findings are evident for neighbourhood effects (officers at Takahē and Mātātā reported being less influenced by neighbourhood factors than officers at Kea). The influence of ILP on officer attitudes towards broad environmental factors
was modest. The influence of ILP uptake on officer attitudes towards neighbourhood factors was more pronounced.

In summary, negative views among officers about environmental factors were associated with weak uptake of innovation. Officers held more negative views about the general socio-economic environment at weak uptake sites. In particular, negative views were expressed about challenging neighbourhoods. Pessimistic views about the ability of police to achieve positive outcomes in high crime, low socio-economic neighbourhoods were a limiting factor, constraining the uptake of ILP innovation in New Zealand. In contrast, the strong uptake of ILP innovation interacted positively with officer attitudes towards the general environment and challenging neighbourhoods. Officers at strong uptake sites were more confident in their ability to influence the local environment. This more positive mindset supported the uptake and development of ILP in New Zealand.

6.8 Conclusion

This chapter has presented my research results exploring the relationship between environmental factors and the uptake of and resistance to ILP innovation. My research has demonstrated interactions between environmental factors and innovation uptake, the direct effects of environmental factors and important null effects for key environmental factors.

Several environmental factors showed no influence on the uptake of innovation. Media coverage, police unions and general community relations were neutral in regard to innovation uptake. Officers at strong and weak uptake sites reported no differences in their attitudes towards these factors. My interviews with key respondents could not establish any evidence of these
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factors influencing the uptake of innovation or of innovation uptake impacting on these factors. Specific features of the New Zealand policing environment may account for these null findings. My research shows that police unions, general community relations and reactions to media coverage are consistent background features of the NZP environment and the neutrality of these factors in relation in innovation may be idiosyncratic to New Zealand.

Other factors did emerge as associated with innovation uptake. Strong uptake sites reported healthy relationships with local government. These relationships were purposeful and focused on achieving crime reduction outcomes. Ratcliffe’s (2003) 3I model was important in providing a framework and clear objectives for this relationship. A key district commander described the relationship as “partnering for purpose”. There were important differences in the quality and focus of local government relationships at weak uptake sites. At one weak uptake site a strong relationship was emerging with local government, but, there was evidence the relationship was enforcement focused and not open to innovative partnership approaches to local crime problems.

Input demand stimulated ILP uptake but also acted as a barrier to innovation. At weak uptake sites officer views about work overload undermined innovation uptake. At strong uptake sites innovation uptake saw officers holding differing views about input demand, depending on the stage of their area in the innovation process. At more mature sites officers reported high input demand with significant proactive workloads. Less mature strong uptake sites reported less input demand due to recent crime reductions associated with ILP uptake. Input demand can also stimulate innovation. Evidence emerged that environmental pressures had stimulated innovation at one strong uptake
site, but all other research sites moved to implement ILP with the majority of other NZP sites, as ILP became more normalised.

Overall, ILP uptake influenced both the environmental demands placed on officers and the attitude of officers towards those demands. The focused nature of ILP strategies reduces crime-related input demand but increases the demands on officers to perform ILP-related proactive tasks. The attitude of officers towards environmental factors at strong uptake sites was more positive. Once ILP was successfully implemented officers reported having less crime to deal with but overall being just as busy with a combination of both reactive and proactive ILP tasks. At weak uptake sites officers were unconvinced about the value of ILP-related tasks and were reluctant to perform these tasks because they believed they were already too busy. Officer perception of high input demand was a barrier to innovation.

The impact of environmental factors became more evident as my research moved from general questions about the police operational environment to more focused questions. There was evidence that officers at weak uptake sites view their operational environment as more unstable and complex than colleagues at strong uptake sites. However, neighbourhood factors were clearly influential. Officers at weak uptake sites were more influenced by neighbourhood factors than officers at strong uptake sites. Officers at weak uptake sites were quite pessimistic about their ability to effectively police in high crime low socio-economic neighbourhoods. Overall, officers at weak uptake sites tended to more despondent about their operational environment. The uptake of ILP equipped officers with greater self-belief about their ability to
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influence the local criminal environment. This greater self-belief coupled with clear ILP-related tasking reduced the influence of neighbourhood factors.

The influence of Ratcliffe’s (2003) 3I ILP model was important. The model provided a structured approach, defining roles and clarifying what police needed to do to implement ILP. The model provided police areas with a methodology or formula for addressing both crime and wider environmental and community problems. There is evidence that ILP framed local environmental and neighbourhood problems as manageable rather than overwhelming. This encouraged confidence amongst officers and managers.

Overall, environmental factors impacted on and interacted with ILP innovation. Where ILP was taken up strongly it supported crime reduction and mitigated the negative influence of environmental factors on officer behaviour and attitudes. ILP uptake also encouraged the development of key relationships and positive evidence-based approaches to environmental problems. Environmental factors stimulated innovation at an early adopter site but constrained innovation at weak uptake sites by leaving officers pessimistic about their ability to influence the criminal environment.

Table 6.12 summarises the key findings in relation to environmental factors.

<table>
<thead>
<tr>
<th>Environmental factor</th>
<th>Strong uptake sites</th>
<th>Weak uptake sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media coverage</td>
<td>No impact</td>
<td>No impact</td>
</tr>
</tbody>
</table>
### Chapter 6: Environmental Factors

<table>
<thead>
<tr>
<th>Environmental factor</th>
<th>Strong uptake sites</th>
<th>Weak uptake sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local government</td>
<td>Strong relationships</td>
<td>Weak relationships</td>
</tr>
<tr>
<td></td>
<td>ILP stimulated crime reduction focused partnerships with local government – “partnering for purpose”</td>
<td>Evidence of enforcement focus and CIB resistance undermining relationship with local government</td>
</tr>
<tr>
<td></td>
<td>ILP-related crime reduction created political currency for politicians and police</td>
<td></td>
</tr>
<tr>
<td>Police unions</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Community relations</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Input demand</td>
<td>Environmental factors stimulated innovation at one site.</td>
<td>Officer perception of high input demand was a barrier to innovation; officers perceived they were too busy for ILP tasks</td>
</tr>
<tr>
<td></td>
<td>ILP strategies reduce crime-related input demand but increase demands on officers for ILP related proactive tasks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maturing of ILP coupled with continuous innovation creates high input demands on officers</td>
<td></td>
</tr>
<tr>
<td>Environmental complexity, stability and neighbourhood factors</td>
<td>Officers perceived less environmental complexity and greater environmental stability and were much less influenced by neighbourhood factors</td>
<td>Officer perception of greater environmental complexity and instability was a barrier to uptake</td>
</tr>
<tr>
<td></td>
<td>ILP uptake reduced the influence of environmental factors particularly neighbourhood factors</td>
<td>The strong influence of neighbourhood factors negatively impacted on innovation uptake.</td>
</tr>
<tr>
<td></td>
<td>The 3I model provided a methodology for police areas to use; the model improves understanding of the criminal environment and greatly assists in operationalising ILP</td>
<td>Officers were pessimistic about their ability to influence the environment</td>
</tr>
</tbody>
</table>
In the next chapter I assess the importance of individual-level factors to the uptake of ILP innovation in New Zealand. ILP emerged in New Zealand due to the actions of police managers either following existing trends or being prompted by a confluence of problems and solutions. ILP was introduced and developed through organisational-level initiatives such as transformational leadership and participative management. The focus of these actions was on introducing the technology and infrastructure necessary to support ILP and, most importantly, on securing the backing of front-line officers. If officers could not be encouraged to change their behaviour, perform ILP tasks and contribute to developing intelligence knowledge, ILP would falter. In the next chapter, I assess the importance of officer support to the uptake of ILP. I evaluate how officer support was secured and how resistance to change was overcome. I compare and contrast the success of initiatives directed at securing officer support across strong and weak uptake sites. In Chapter 7, I present findings important to understanding the importance of individual officer support to the success of police innovation and examine how officer support, commitment and behaviour was secured.
Chapter 7: Individual Factors

7.1 Introduction

In the previous two chapters I evaluated the utility of organisational factors in facilitating the uptake of intelligence-led policing (ILP) and the impact and interactions of environmental factors. In this chapter I explicate the role of individual factors in supporting the development of ILP innovation or creating resistance in New Zealand. I consider both the importance of individual factors to the overall success of ILP and how individual officer support was secured. I assess the effectiveness of changes to organisational features in eliciting individual officer support for ILP. For ILP to succeed officers need to undertake intelligence tasks enthusiastically and contribute to the development of intelligence within their local police area. The emergence of avoidance behaviours or unwillingness on the part of officers to commit discretionary time to intelligence tasks is a serious impediment to the development and effectiveness of ILP.

Individual factors have been an important focus of policing research over the last four decades. Police researchers have endeavoured to establish how much the attitudes and characteristics of individual officers influences their behaviour. The impact of characteristics such as officer race, education and social background on arrest and use force behaviours has been explored. Research consistently finds that officer characteristics are poor predictors of officer behaviour (Crank, 1993; National Research Council, 2004; Riksheim & Chermak, 1993; Sun, Payne, & Wu, 2008; Worden, 1989). Far more important is the influence of immediate situational variables in determining officer

Other research has endeavoured to establish whether investments in shaping officer attitudes can influence behaviour. Research demonstrates that attitudes are important in determining officer behaviour when that behaviour is discretionary and not shaped by specific rules and sanctions (National Research Council, 2004). The behaviours required of officers by innovations such as community-oriented policing (COP) and ILP are frequently discretionary in nature or can be avoided by unwilling officers (National Research Council, 2004; Riksheim & Chermak, 1993; Robinson, 2002). If officers can be persuaded to hold positive attitudes towards a new innovation, then provided other supportive factors are present a new innovation is much more likely to succeed. Research demonstrates the importance of supportive officer attitudes to successful innovation. Mastrofski, Worden and Snipes (1995) found that officers with more positive attitudes towards community policing made fewer arrests than officers with more negative attitudes. Weissbein, Plamondon and Ford (1999) and Ford, Weissbein and Plamondon (2003) found that officer commitment to community policing was directly related to the performance of community policing behaviours. Lurigio and Skogan (1994) argue that officer attitudes must be substantially changed for community policing to be implemented successfully.

Organisational and managerial approaches are the key mechanisms used to shape officer attitudes. Formal training that gives officers a good working knowledge of innovation may encourage officers to adopt innovative practice (Rosenbaum, Yeh, & Wilkinson, 1994; Scott, 2003). There is growing evidence
that police leadership is important is shaping officer attitudes and behaviours. Leaders who clearly communicate priorities to front-line officers can encourage both commitment and behaviour that support innovation, particularly where a supportive environment is also developed (Engel & Worden, 2003; Famega, Frank, & Mazerolle, 2005; Ford, Weissbein, & Plamondon, 2003; Moore et al., 1999; National Research Council, 2004; Riksheim & Chermak, 1993; Robinson, 2002; Weissbein, Plamondon, & Ford, 1999).

A final important finding from the literature is the impact of context and supporting factors in building officer support for innovation. Efforts to change officer attitudes are wasted if the organisational environment in which officers operate does not support innovation or provide opportunities for officers to engage in innovation-related behaviours (Haarr, 2001; National Research Council, 2004; Mastrofski & Ritti, 1996). Mastrofski and Ritti (1996) found that officers who received DUI\textsuperscript{63} training were much more likely to prosecute drink drivers if they operated in a supportive environment with features such as supervisors and managers encouraging the use of that training. What emerges from the literature is the importance of an alliance of factors working together to influence officer behaviour and secure innovation uptake. Where this coalition of factors is not achieved resistance to change can emerge. Efforts to change officer attitudes combined with opportunity, leadership and effective operational processes are highly influential on officer behaviour.

In this chapter I present my research findings, exploring the interaction between officer attitudes, behaviours, the development of resistance to change

\textsuperscript{63} Mastrofski and Ritti (1996) used the expression ‘DUI’ – driving under the influence. ‘Drink driving’ is the equivalent expression used in New Zealand.
and the uptake of ILP. Officer attitudes are important in shaping innovation, but innovation uptake is likely to strongly influence officer attitudes. The presence of supporting or inhibiting factors will make officer attitudes more or less likely to influence their actual behaviour.

7.2 Officer knowledge

Policing research demonstrates the importance of training and developing officer knowledge about an innovation. Research has established that knowledgeable officers are more likely to engage in community policing (Rosenbaum, Yeh, & Wilkinson, 1994) and problem solving (Scott, 2003). Palmiotto, Birzer and Unnithan (2000) point to broad acceptance of the need for extensive training in community policing, if COP is to be become effectively embedded in American police agencies. Haarr (2001) emphasises the need for recruit training in community policing to be received into a supportive environment, if that training is to bear fruit. While training is clearly important, it is not a panacea or guarantee of successful innovation. Training can be used for presentational reasons as a way to divert attention or give the impression that change is occurring (Mastrofski & Ritti, 1996).

An important component of developing officer knowledge of ILP in New Zealand is establishing officer knowledge about Ratcliffe’s (2003) 3I model. Officers who acquire an understanding of Ratcliffe’s 3I model develop not just a better understanding of ILP as an abstract concept, but a better understanding of how ILP should work and what officers are expected to do to contribute to ILP. The model bridges theory and practice. Officers with a good working knowledge of Ratcliffe’s 3I model understand the importance of their contribution to the overall success of ILP.
In this section I address the following questions. How important was officer knowledge of ILP to the uptake of ILP innovation in New Zealand? What strategies and features support and limit officer knowledge of ILP? What is the relationship between resistance to change and officer knowledge of ILP?

My officer survey findings assessed officer knowledge of ILP across my four New Zealand research sites. Specifically, I tested officer knowledge of Ratcliffe’s (2003) 3I model and general principles of ILP. I used these results to explore the extent to which officer knowledge of ILP principles contributed to the adoption of ILP practices. Using the MANOVA test, Table 7.1 presents the results from my survey which examined the relationship between officers’ self-reported level of knowledge of ILP and whether or not they worked in a strong or weak uptake police area.

**Table 7.1: Knowledge of intelligence-led policing**

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12.70</td>
<td>2</td>
<td>x</td>
<td>ns</td>
<td>.000*</td>
<td>.001*</td>
</tr>
<tr>
<td>1</td>
<td>13.60</td>
<td>1</td>
<td>ns</td>
<td>x</td>
<td>.000*</td>
<td>.000*</td>
</tr>
<tr>
<td>4</td>
<td>10.36</td>
<td>4</td>
<td>.000*</td>
<td>.000*</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>3</td>
<td>10.75</td>
<td>3</td>
<td>.001*</td>
<td>.000*</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 17.628  df = 3  p < 0.000  Partial Eta Squared = .158;  * = p < 0.05  ns = not significant

As Table 7.1 shows, knowledge of ILP among officers at innovative site Takahē (M = 13.6) was significantly higher than among officers at non-innovative sites Kea (M = 10.75, p = .000) and Hihi (M = 10.36, p = .000). Officer knowledge of ILP at innovative site Mātātā (M = 12.70) was also significantly higher than the level of ILP knowledge reported by officers at non-innovative sites Kea (M = 10.75, p = .001) and Hihi (M = 10.36, p = .000).
I hypothesised that officers at strong uptake sites would report greater knowledge of ILP than colleagues at weak uptake sites. My hypothesis was strongly supported by my officer survey findings. Officers at Takahē and Mātātā reported significantly higher levels of ILP knowledge than colleagues stationed at Kea and Hihi.

My officer survey findings were also supported by the results of my interviews with key respondents. My interviews provided clear explanations as to why officer knowledge of ILP was much higher at strong uptake sites. Managers at strong uptake sites considered ILP knowledge critical to achieving local crime reduction and were highly motivated to acquire new knowledge, develop that knowledge into practice and pass that knowledge to officers. Managers were interested in developing knowledge about effective ILP strategies, how officer performance of ILP tactics could be increased, the utility of partnerships in supporting crime reduction and how officer support for ILP could be developed and maintained.

ILP knowledge was developed in a variety of ways. One approach was applying, promoting and developing the 3I model (Ratcliffe, 2003). The district commander at Takahē was a 3I model enthusiast. Both the district commander and the local area commander heavily promoted the model and structured business practice using the model. There was an emphasis on understanding how the model could be applied successfully and improved. The highest levels of officer ILP knowledge were reported at Takahē, and this reflects the efforts to both teach and promote the model to officers. The district commander explains.
Chapter 7: Individual Factors

_District commander Takahē:_

We’ve taken the 3I model, we think that’s really good. Now we came along with some stuff, the 3I model puts a really easy to understand structure around it. So we’ve invested really heavily in that and we think it’s great.

At strong uptake sites officers acquired ILP knowledge through a range of channels. Officers learnt about ILP through direct tuition by managers and through workshops. Experts were used to teach and advise and to develop and improve ILP practice, products and processes. Officers were put on special projects to develop solutions to crime or practice problems. Managers worked to improve nationally provided training and develop robust local standards. When asked about how ILP knowledge was developed in his district, a district commander gave this explanation.

_District commander Takahē:_

Workshops, face-to-face talking um, identified good practices and learning from that, putting people on special projects to identify what the issues are so we can, like we’ve just done one on around um, the, the college\(^{64}\) will teach you how to actually do a problem profile and anything but they don’t teach you where to get all the information from to actually do that, so just been building standards around that um, lots and lots of talking and thinking ah, bringing other experts in to teach us, identifying our own best practice and spreading that round range you know, just a whole range of different things.

Managers at strong uptake sites were enthusiastic about developing their local intelligence model. This enthusiasm was linked to the challenge of meeting local crime reduction goals. Managers were under constant pressure to find innovative solutions to crime problems and better ways to practise ILP. For example, the district commander at Takahē (see quotation above) described how officers were tasked to improve local “problem profiles”. Once

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\(^{64}\) The college – The Royal New Zealand Police College, which is the New Zealand Police national training facility.
Intelligence-Led Policing in New Zealand

improvements were identified, new “standards” (district commander Takahē) were set prescribing how problem profiles should be developed. Developing and applying new knowledge was central to meeting the challenge of crime reduction goals.

The district commander at Mātātā described the evolutionary process of knowledge development at Mātātā. Managers would trial a new approach to ILP practice to test its effectiveness. If the approach worked it was adopted, if it failed another approach was tried. In this way ILP practice and crime reduction effectiveness developed over time. The commander describes how managers would be “wildly enthusiastic” about an approach to ILP or crime reduction then “later they’re doing it somewhat differently”. The process of learning and development was an ongoing “evolutionary process” and there was a constant need to “refresh” the approach being taken within the area (district commander Mātātā).

District commander Mātātā:

And ah, Mātātā have been wildly enthusiastic about something and then ah, two years later they’re doing it somewhat differently and that’s, there’s nothing wrong with that but it’s just, it’s that, part of that development and sometimes you just got to do things different to refresh and um, ah, you know, some of those ah, intangibles are the, are the same but um, you know, you know, go back to 1998 Mike65 might be passionate about something and two years later, you know, he’s um, said no well, you know, they’re changing them or, or more over here now and doing this um, you know, it’s, it’s been an evolutionary process and it continues to involve ah, evolve yeah.

An important aspect of the approach taken at strong uptake sites was managers personally investing in individual officer knowledge. Local managers would take time to explain ILP to individual officers when they detected

65 Mike is a pseudonym.
resistance to change or confusion. At Takahē the sergeant in charge of the Intelligence section observed how the local area commander would follow up with individual officers to support formal training. This personal coaching of individual staff is described in the leadership literature as “individualised consideration” and is characteristic of transformational leaders (Bass and Avolio, 1994). The commitment of key leaders to personally developing ILP knowledge is important in explaining how innovation knowledge developed at strong uptake sites.

*Sergeant in charge Intelligence section Takahē:*

R: Ah, whereas as the likes of [the previous area commander], I think, wasn’t a good listener. Um, he wanted to, he’s taken the time to teach people and, and he’s talked to them until ah, until they’ve come on board with his way of th …, until they could ah understand. He’s made people understand what you know if, if he’s, if he’s hit some resistance he’s, he ha …, he’s thought well this is so crucial to spend the next hour of my time.

D: Hmm.

R: Teaching this person um, what it’s about and then, and he does that and the gains are that he no longer gets resistance from that person because they understand what they’re doing.

Officer ILP knowledge was also reinforced in practical ways. For example, the value of tactics such as bail checks in reducing crime was reinforced to officers. Intelligence officers became the conduit for reinforcing the link between knowledge and behaviour. At Mātātā intelligence officers reinforced training by explaining how intelligence had been developed, the value of that intelligence to the local police area and the advantages of following the

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66 Bail checks involve officers checking that prolific or active offenders are complying with the conditions of their bail. An active offender might have a night-time curfew, for example. This means the offender must be at home at night and report to officers if they call to check. An offender’s failure to meet bail conditions results in their arrest followed by another bail hearing at court and possible remand into custody.
recommendations of intelligence products to officers. Practice reinforced ILP knowledge in the minds of officers.

*Sergeant in charge Intelligence Unit Mātātā:*

Well I mean we tell them why they’ve got the taskings they’ve got, this is our best guess, this is what we expect, this is why we know what we know and this is why we’re putting you there, so that they can understand and I mean sometimes the bail checks might slip off, I mean we ask a lot of bail checks of our staff.

D: Hmm.

R: Um, sort of up around 170 bail checks a week.

D: Hmm.

R: Which is more than most places that I’ve worked before.

D: Hmm.

R: But we say to them and we can illustrate it to them this is why we do this because when we slip on our bail checks our offending goes up. So it’s an easy sell. You can either do the bail check that takes you two minutes or you can spend an hour and a half doing a burglary report.

Officers were equipped with knowledge and then expected to engage in ILP behaviours that supported ILP and reinforced the knowledge they had acquired. My finding is consistent with a point made by Mastrofski and Ritti (1996) in their observational research. They found that where DUI training was reinforced and supported in the operational environment, DUI enforcement was more prevalent. My research shows that where managers reinforced ILP knowledge, intelligence officers’ innovation uptake and ILP behaviours were enhanced.

In contrast, support for acquiring and developing ILP knowledge at weak uptake sites was patchy. My officer survey findings reported that officers at weak uptake site were significantly less knowledgeable about ILP than their
colleagues at strong uptake sites. Interviews with key respondents at weak uptake sites established clear explanations for this difference.

The first and most important reason for weak officer knowledge was poor ILP knowledge among managers. Managers were unclear what ILP was and how it should be implemented. They were also less enthusiastic about acquiring ILP knowledge, developing and reinforcing officer knowledge and using ILP knowledge to improve practice. Behaviours such as the personal tuition of individual officers about ILP were absent. A further problem was inept formal training. The training of officers in ILP at weak uptake sites was nonexistent or poorly implemented. Finally, reinforcement of ILP knowledge by linking practice and knowledge in the minds of officers was absent. Uptake of ILP behaviours was not supported by effective practice and was not reinforced by key groups such as intelligence officers.

Poor manager knowledge impacted negatively on officer knowledge and general capacity to innovate. A key senior sergeant at Hihi describes both his own lack of ILP knowledge and wider weakness in manager knowledge. He considered that a failure to communicate knowledge and share ideas contributed to implementation difficulties. He describes not really understanding ILP and only tentative efforts to establish how ILP should work.

*Key senior sergeant 1 Hihi:*

I just think there wasn’t enough understanding of the process and whether that was a leadership issue or just a communication issue I’m not sure but I certainly didn’t fully understand how the process worked until very recently and it’s been explained to me and we’re clearly not doing it properly. If we are we’re paying lip service to it plus there’s a fair amount of feeling your way and finding out what works for you and I don’t think we’ve been very good at sharing the successful ideas …
It is axiomatic that managers who do not understand ILP are unlikely to be able to successfully pass knowledge onto officers or successfully implement ILP innovation. Lack of ILP among managers is also likely to contribute to weakness in important technical aspects of ILP. Researchers have identified that gaps in manager ILP knowledge are barriers to ILP innovation (Cope, 2004; Ratcliffe, 2004). Managers need to understand how to form strategies likely to impact on the criminal environment and communicate effectively with analysts in order to support the development of ILP (Cope, 2004; Ratcliffe, 2004). If managers lack training in ILP, do not understand what strategies and tactics are likely to be effective or have no grounding in crime sciences, environmental criminology or problem solving, they are unlikely to be able to think beyond traditional police responses to crime problems.

Weakness in manager knowledge of ILP was also reflected in the poor delivery of ILP training to officers. My interviews with key respondents demonstrated that formal training at weak uptake sites was absent, mistimed or inadequate. The sergeant in charge of the Intelligence Unit at Hihi described the absence of formal ILP training for officers.

Sergeant in charge Intelligence Unit Hihi

… no, there's no training there’s no ah, yeah there’s nothing, no.

A key senior sergeant respondent from Kea described mistimed training that occurred months after changes where put in place.

Key senior sergeant 1 Kea:

… piecemeal hallway explanations but we never had some proper training in what, I, I don’t, it would probably be six months after they implemented it here.
When asked about formal training for officers the area commander at Hihi described minimal efforts to inform sergeants about ILP, but no direct engagement with officers.

*Area commander Hihi:*

… there was papers circulated to the NCOs um and there was um, um, ah, presentations at NCO meetings about the um, the concept.

The police literature shows that the benefits of training are quickly dissipated if the wider organisational environment does not support turning training into practice (Haarr, 2001; National Research Council, 2004; Mastrofski and Ritti, 1996). My research supports this finding. At strong uptake sites formal training was supported directly with encouragement and explanation from managers, supervisors and others in positions of authority. Systems and processes provided opportunities for ILP behaviour, limited discretion time and clearly defined what behaviours were expected and the benefits of those behaviours. When encouragement failed managers focused on ILP tasks as transactions and put pressure on officers to conform and perform tasks. At weak uptake sites key processes were confused. This confusion meant officer ILP knowledge was not reinforced through practice. The sergeant in charge of the Intelligence Unit at Kea describes confusion around the key tasking process. It was unclear who was responsible for reviewing tasks assigned to officers to ensure they were completed.

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67  NCO – non-commissioned officer.
68  Tasking is the process of issuing directions to officers to complete specific tasks to target prolific offenders, complete directed patrols, work with community partners or engage in problem-solving activities.
Sergeant in charge Intelligence Unit Kea:

... that tasking has to come all the way down to the front line. Now I, there’s some, I think there’s some role confusion in there. You know what is the role of your Intelligence Unit, what is the role of your tactical NCO, non-commissioned officer or TRG coordinator, um, and what are the role of the NCOs following on from there? Um, yeah I think we need to put quite a bit of emphasis around that …

Confusion about core ILP functions not only fails to effectively reinforce knowledge through practice, but signals to officers that ILP is not important and does not need to be taken seriously. ILP tasking is critical to successful implementation of ILP. Confusion about this central ILP function is likely to contribute to officer doubts about the importance of ILP and leaves opportunities for officers to substitute alternative behaviours. Officers may substitute more favoured approaches such as the standard model of policing, which emphasises reactive policing and after the fact investigation (Weisburd & Eck, 2004). Confusion leaves opportunities for resistance to change to emerge.

I noted in Chapter 5 that a key senior sergeant at Kea linked his resistance to change to poor knowledge of ILP. The senior sergeant was a senior manager in the Criminal Investigation Branch (CIB) and identified that he had not been trained in ILP, did not understand ILP and “just couldn’t see why we were doing it”. My findings link weak knowledge of ILP among managers to the emergence of resistance to change. Resistance was more prevalent at weak uptake sites and weak ILP knowledge among managers and officers underpinned resistance to change.

NCO – non-commissioned officer.
TRG – Tactical Response Group.
My interviews demonstrated strong contrasts between the attitudes of managers at strong and weak uptake sites towards acquiring and developing ILP knowledge. Managers at strong uptake sites prized ILP knowledge. They were interested in learning what strategies and tactics would work to reduce crime and how to effectively operationalise those approaches. Developing new ILP knowledge was described part of an “evolutionary process” (district commander Mātātā), where new approaches would be tested and trialled for crime reduction efficacy. Developing ILP knowledge was important because new knowledge was needed to meet the challenge from emerging crime and practice problems. At strong uptake sites the following questions were considered and addressed. What bail check dosage was needed to effectively control local crime? Could bail check practice be more efficiently conducted? At strong uptake sites managers understood these challenges and focused on developing and improving ILP knowledge about what works to reduce crime and how to practically apply that knowledge at the local level. ILP knowledge was central to the development of ILP as a genuine strategic innovation.

The learning and development evident strong uptake sites, demonstrates maturity in the innovation life cycle at these sites. These areas were institutionalising ILP. Moreover, institutionalisation was not a static process. There was a dynamic approach to reviewing progress, gathering new knowledge and improving ILP. This approach was important to meeting the ongoing challenges of a continually developing criminal environment.

My results demonstrate a strong relationship between officer and manager knowledge of ILP and the uptake of ILP. Officers at strong uptake sites were significantly more knowledgeable about ILP than colleagues at weak uptake
sites. Managers at strong uptake sites valued ILP knowledge. Officers at strong uptake sites were better trained; ILP knowledge was promoted by managers and, where necessary, individual officers received personal tuition from managers. Learning was reinforced by robust day-to-day practice that cemented learning and practice in the minds of officers. The overall outcome was effective delivery of ILP knowledge to officers that was readily reinforced in the operational environment. My findings support the literature, which emphasises the need for organisational architecture to support learning (Haarr, 2001; National Research Council, 2004; Mastrofski & Ritti, 1996).

At weak innovation uptake sites formal training was problematic. Officers were not trained or training was mistimed and inadequate. As a consequence, training was poorly received by officers. The key problem at weak uptake sites was poor manager ILP knowledge and a lack of understanding about the need to continually develop and apply new ILP knowledge to meet the challenges of local crime problems. ILP was treated more as a programmatic or administrative innovation (National Research Council, 2004) that once in place could be left to run under its own momentum. Therefore, basic officer knowledge was not reinforced. The failure of ILP knowledge to be properly grounded at weak uptake sites left opportunities for the standard model of policing (Weisburd & Eck, 2004) to persist and resistance to emerge. Weak ILP knowledge encouraged both, passive resistance from officers who were ambivalent about ILP and left more active resistance unchallenged through the acquisition of new knowledge.
7.3 Officer commitment

The development of ILP within New Zealand Police areas is likely to be profoundly influenced by the individual commitment of police officers. The police literature points to the importance of situational variables in shaping officer behaviour (Kania & Mackey, 1972; Reisig, McCluskey, Mastrofski, & Terrill, 2004; Riksheim & Chermak, 1993) and a tenuous link between officer attitudes and behaviour (Becker, Billings, Eveleth, & Gilbert, 1996; Mastrofski, Ritti, & Snipes, 1994; Robinson, 2002; Schafer, 2002). However, the low visibility of policing and the discretionary nature of ILP behaviours, means individual officer commitment is important to the successful uptake of innovations such as ILP (Riksheim & Chermak, 1993; Robinson, 2002).

Research also links officer commitment and innovation uptake. Lurigio and Skogan (1994, p. 315) argue that the prospects for community policing were poor unless the “hearts and minds” of officers could be won over. Weissbein, Plamondon and Ford (1999) found officer commitment to community policing predicted community policing behaviours. Ford, Weissbein and Plamondon (2003) surveyed officer attitudes and behaviour, concluding that commitment to community policing was important in supporting community policing behaviours.

More recently police scholars have emphasised the importance of building innovation support from the bottom up, rather than imposing top-down change (Sklansky & Marks, 2008; Skogan, 2008; Toch, 2008; Wood, Fleming, & Marks, 2008).

Individual officer commitment can be enhanced in several ways. Formal training is important, along with giving officers opportunities to practise new skills (Palmiotto, Birzer, & Unnithan, 2000; Rosenbaum, Yeh, & Wilkinson, 1994; Weissbein, Plamondon, & Ford, 1999). Encouragement from leaders and
the creation of a supportive organisational environment shape attitudes and
build officer commitment (Engel & Worden, 2003; Ford, 2002; Long, 2003;

In this section I explore the following questions. How important was officer
commitment to the uptake of ILP in New Zealand? How was commitment
developed and sustained? How did officer commitment and the uptake of ILP
interact?

My research tested officer commitment to ILP at the four research sites of
my study sample. I asked officers about their personal commitment to ILP, their
views on the merits of ILP and local effectiveness of ILP. I used these results to
explore how commitment to ILP contributed to the uptake of ILP. Table 7.2
presents the results from the officer survey after MANOVA testing, which
examined the relationship between officers’ self-reported level of commitment to
ILP and whether or not they worked in a police area with a strong or weak
uptake of innovation.

**Table 7.2: Commitment to intelligence-led policing**

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.004*</td>
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<td>10.57</td>
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<td>.000*</td>
<td>.000*</td>
<td>ns</td>
</tr>
</tbody>
</table>

F = 26.247  df = 3  p < 0.000  Partial Eta Squared = .218;  * = p < 0.05  ns = not significant

As Table 7.2 shows, commitment to ILP at Mātātā (M = 13.25) was
significantly higher than at weak uptake sites Hihi (M = 11.08, p = .000) and Kea
(M = 10.57, p = .000) and strong uptake site Takahē (M = 12.09, p = .004).
Commitment to ILP at Takahē (M = 12.09) was significantly higher than at weak uptake sites Kea (M = 10.57, p = .000) and Takahē (M = 11.08, p = .018).

My results show a striking divergence in officer commitment to ILP between strong and weak uptake sites. At Mātātā, the most mature ILP uptake site, officers were highly committed to ILP, more committed than officers at any other site. At strong uptake site Takahē officers were also more committed to ILP than officers at weak uptake sites. This finding links officer commitment to different stages of the innovation lifecycle. Commitment to ILP was strongly associated with innovation uptake and the more mature and developed ILP was, the stronger officer commitment was. This is an important and strong finding highlighting the importance of individual officer commitment to the success of ILP uptake in New Zealand. I now turn to my interviews with key respondents to explore how commitment to ILP developed at strong uptake sites and what features of weak uptake sites inhibited officer commitment to ILP.

Officer commitment to ILP was built through the efforts of managers who focused directly on building officer commitment to and confidence in ILP. Managers worked hard to instil in the minds of officers a belief that personal commitment was essential to achieving local crime reduction goals and that the collective effort of local police in pursuing ILP was an important and worthwhile endeavour. Managers emphasised building confidence rather than imposing compliance. The area commander at Mātātā describes giving his officers clarity about what was expected but his approach was winning "commitment over compliance".
Area commander Mātātā:

I would like to think in my role, in my style that I gave the people that work for me clarity about what I expected from them but, my approach was always to try and win um, people’s commitment over compliance to what our goals were.

Managers built commitment through leadership. Key respondents described efforts to build officer confidence by celebrating crime reduction success and seeking officer contributions to developing intelligence. The area commander at Mātātā built confidence by demonstrating the ILP’s effectiveness at reducing crime. Crime levels were closely monitored and the commander celebrated crime reduction success with officers. When crime problems emerged, the commander focused on identifying solutions with officers by tapping officer craft or street knowledge (Sklansky & Marks, 2008). Overall, the area commander Mātātā characterised his role as that of a “coach”.

Area commander Mātātā:

Um, it’s about, it was about talking about the belief that we’re people made the that have the biggest impact on crime. So if we had good numbers we celebrated them, if we didn’t have good numbers we asked the questions, you know, just like the coach does at half time if you’ve lost the first half, you know. What are we doing wrong here, what are we missing. Someone in this room knows why theft exs have gone through the roof here, or wherever it is and someone in this, at you know, at the station meeting has the answers, someone has spoken to the kid that’s done it or has spoken to them in the past and self, again it came back to that self-belief thing.

Efforts to build bottom-up support for ILP, to engender confidence about ILP and to celebrate the success of ILP were pivotal in building officer commitment. Celebration of crime reduction was important. It signalled effectiveness and reinforced the merits of ILP in the minds of officers. Managers focused on establishing commitment by encouraging officer participation and contribution,
celebrating success and coaching. Leadership was to the fore in building officer confidence and commitment.

Using the same techniques, managers at strong uptake sites made particular efforts to build commitment among front-line supervisors. Managers understood the importance of securing the commitment of sergeants to ILP and recognised that sergeants were the gatekeepers of officer commitment. Supervisor commitment was targeted specifically through managers engaging in small group workshops with supervisors. These workshops provided a forum for discussions about the merits of ILP and gave managers an opportunity to persuade supervisors to commit to ILP. As with their efforts to build officer confidence, managers focused on establishing a belief in the minds of supervisors that they were important actors in reducing crime and that their efforts in applying ILP were driving local crime reduction. The sessions reviewed local successes and considered how more challenging goals could be achieved.

*Interview area commander Mātātā:*

We weren’t doing training in terms of tactical skills we were doing a lot of stuff examining about who we were and what mattered to us and what worked for us in Mātātā and we did that more often in small groups. It was about me and the seniors being face to face with those guys and girls and, and talking up what we did. Talking up what was successful and what worked for us. Um, there’s always, I believe a strong sense of self-belief that we could do whatever, Brendon asked of us …

Policing researchers have recognised the important influence of front-line supervisors on officer behaviour (Becker et al., 1996; Dejong, Mastrofski, & Parks, 2001; Engel & Worden, 2003; National Research Council, 2004).

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71 Brendon is a pseudonym for the local district commander.
Managers at strong uptake sites also recognised the importance of supervisors in securing the commitment of front-line officers to ILP. Managers focused on front-line supervisors as a key strategy in securing the overall commitment of officers to ILP.

Officer participation was also sought in more formal ways. The Area Commander at Takahē encouraged officer participation through annual workshops focused on crime reduction. He noted encouraging signs that officers were enthusiastic about participating. These efforts helped build commitment through explanation and participation. A number of scholars have identified officer participation as a key factor in establishing successful police innovation (Eck and Spelman, 1987; Ford, 2002; Moore et al., 1999; Metclaffe, 2001; Sklansky & Marks, 2008; Toch, 2008; Wood, Fleming, & Marks, 2008; Wycoff & Skogan, 1994).

Area Commander Takahē:

So ah, this is the second year of that and um, yeah that, and works well and I, and the staff appreciate it because, and you see them change. Like, last year around the workshops it was sort of a, you know, the ideas that come up were, were pretty sort of standard you know, nothing sort of out of the square or anything else like that. This year there was a hell of a lot more talk going on, it was a lot more um, um, sort of interest in the whole process and, and on what they could, could do about particular crime types so it was actually a lot more, I felt it was a lot more beneficial listening to the ah, the talk around the st ..., around the workshops ...

My results showed a significant difference between self-reported levels of officer commitment at with a strong uptake sites. Officer commitment at Mātātā (M = 13.25) was significantly higher than officer commitment at Takahē (M = 12.09, p = .004). Interviews with key respondents explained this difference. ILP had an extended history at Mātātā of nearly 10 years, while innovation efforts at Takahē could be traced back 4 years. The innovation
efforts at Mātātā had successfully overcome typical innovation challenges seen in police organisations such as resistance to change and surviving leadership transition (Skogan, 2008). In addition the features I have identified as associated with officer commitment such as building confidence in ILP, focusing on supervisor commitment and developing officer participation were better established at Mātātā than Takahē. Researchers have also noted a generational effect “a change in the proportion of people who had grown up under the new system rather than the old system of policing” (Moore et al., 1999, p. 26). My results show that the generational effect at strong uptake sites sustained and reinforced commitment overtime. Many key respondents commented that the development of ILP at Mātātā meant that officers would not know any other way of policing.

*Key Senior Sergeant 2 Mātātā:*

… the people working here don’t know anything different and wouldn’t have it any other way. It’s um, it’s accepted it’s bedded in and it’s um, it’s accepted as our way of doing business.

At weak uptake sites specific difficulties in establishing ILP undermined the development of officer commitment to ILP. I noted in Chapter 5 the failure of managers to establish broad leadership coalitions. The inability of managers to establish leadership coalitions had specific consequences for officer commitment. One consequence was the emergence of resistance to change. The presence of resistance in influential units like the CIB, made establishing officer commitment problematic. In addition managers tried to compensate for the presence of resistance by using strategies which further undermined officer commitment. The Area Commander at Kea acknowledged that he wanted to capture officer “hearts and minds” (Area Commander Kea) but resistance was
undermining efforts to achieve that. The Commander felt forced to work with a “compliance model” (Area Commander Kea) and use tactics like restructuring to deliver change. Restructuring involved using top down changes like setting up new operational units to complete ILP tasks, changing the role and function of existing operational units and changing managerial reporting lines. Top down management led changes are often less successful than development from the bottom up (Sklansky & Marks, 2008). Restructuring failed to influence officers positively on the merits and effectiveness of ILP or to develop personal commitment to ILP.

*Area Commander Kea:*

… Yeah, there were some, there were some real issues, so I couldn’t get the hearts and minds, um it was the it was the biggest difficulty so I worked with the compliance model um as a result of that I restructured, took the power base away from the CIB, set up a tactical response group under a different Senior Sergeant and we concentrated on what we wanted to do there.

I described in the previous section the generally poor state of manager knowledge of ILP at weak uptake sites. This contributed to an even more troubling general malaise about ILP and the rationale for implementing it. At weak uptake sites key respondents described confusion about what ILP was and the rationale for its introduction. These problems were identified by key respondents as major barriers to innovation and clearly undermined the ability of managers to influence officers regarding the merits and effectiveness of ILP. An important example of this comes from the District Commander at Kea who frankly acknowledged being unclear about ILP and being confused about the rationale for its introduction. This lack of clear strategic intent combined with poor ILP knowledge amongst managers left weak uptake sites highly vulnerable
to poor innovation uptake. Any problems, opposition or difficulties were likely to derail a muddled innovation process.

*District Commander Kea:* …

… I think the, in my opinion they've taken on Intel-led\(^\text{72}\) policing probably um as a catch phrase for everything without actually clearly understanding some of the things behind it, about what we are actually trying to do, what, what there’s, what we are trying to achieve, and I have to take some responsibility for that.

In summary my research has established a very strong association between officer commitment to ILP and successful innovation uptake. At strong uptake sites the focus was on building officer commitment rather than forcing compliance. At weak uptake sites a “compliance model” (Area Commander Kea) was evident. The focus on compliance and the use of tactics like restructuring was unpopular and undermined the prospects of building officer commitment. Weak understanding of ILP and lack of goal clarity amongst managers confused implementation efforts. Failure to establish a critical mass of supportive internal leaders allowed opposition and resistance to change to develop. These factors undermined commitment and innovation uptake.

At strong uptake sites officer commitment was achieved through intense efforts by managers to build officer self-belief and confidence in ILP. Managers coached and encouraged officers and commitment was reinforced by officer participation in the development of ILP. Once established commitment supported and sustained innovation. As ILP matured an intergenerational effect became evident with commitment passing from one generation of officers to another.

\(^{72}\) Intel – Intelligence.
Officer commitment was very strongly associated with innovation. The successful uptake of innovation was contingent on building officer commitment. ILP relies on officer goodwill. Unless officers are prepared to volunteer the intelligence knowledge they gain through their day-to-day work, ILP will flounder. Unless officers willingly undertake ILP tasks, distractions and excuses for non-performance will always be available. ILP innovation cannot be effectively implemented through rules, sanctions and restructuring; it requires goodwill and enthusiasm to function effectively.

7.4 Supervisor priorities

From general officer commitment I now turn to consider the role of supervisors in supporting innovation uptake. There is growing evidence in the policing literature highlighting the importance of leadership (National Research Council, 2004) and the role of supervisors in shaping officer behaviour and attitudes, particularly where officer behaviour is discretionary (Becker et al., 1996; Dejong, Mastrofski, & Parks, 2001; Engel & Worden, 2003; Famega, Frank, & Mazerolle, 2005). The influence of supervisors has been important in improving performance (Becker et al., 1996) and engaging officers in problem solving (Dejong, Mastrofski, & Parks, 2001; Famega, Frank, & Mazerolle, 2005). Officers are concerned about receiving positive recognition from their supervisor (Dejong, Mastrofski, & Parks, 2001) and engaging in behaviours that align with supervisor priorities (Engel & Worden, 2003). These findings show that front-line supervisors are important in supporting the uptake of innovation. If supervisors can be influenced to prioritise innovation, it is likely that positive officer behaviours and outlooks will follow.
In the previous section I described how managers at strong uptake sites, in particular, focused on building support for ILP among supervisors. In this section I test the effectiveness of those efforts and compare and contrast officer perceptions of supervisor priorities. This section explores the importance of officer perceptions of supervisor support to the uptake of innovation. I address the following questions. How important was supervisor support to the uptake of innovation? Were there differences in officer perceptions of supervisor support between strong and weak uptake sites? What factors shaped supervisor priorities?

As part my officer survey I asked officers to rank their supervisor’s priorities. Officers were asked to consider whether their supervisor prioritised ILP goals such as reducing crime in identified hot spots and targeting repeat offenders or more traditional goals such as keeping arrest rates up and enforcing the law. The ranked priorities were assessed using a chi-square ($\chi^2$) test of goodness of fit to determine whether statistically significant differences existed between the way officers at my research sites viewed their supervisor’s priorities. ILP priorities across my four research sites were not equally distributed ($\chi^2 (3, n = 270) = 9.10, p < .05$). Table 7.3 describes the percentages of officers at each site who ranked an ILP priority as being most important to their immediate supervisor. Officers at high innovation uptake sites believed their supervisors prioritised ILP above traditional policing. Officers at low uptake sites believed their supervisors prioritised traditional policing.

Table 7.3: Supervisor priorities – percentage of officers ranking intelligence-led policing as top supervisor priority

<table>
<thead>
<tr>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
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<tbody>
<tr>
<td>50%</td>
<td>56%</td>
<td>36%</td>
<td>35%</td>
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Officers stationed at sites with a strong uptake of ILP were more likely to believe that their supervisor prioritised ILP than colleagues at sites with weak innovation uptake. Using my interviews with key respondents, I now explore how the attitudes of supervisors contributed to the adoption of ILP practices. I first consider how managers overall viewed the importance of supervisors in adopting ILP.

My interviews with key respondents clearly established that managers at all research sites were alert to the importance of supervisors influencing officer outlook and behaviour. The area commander at weak uptake site Kea recognised the importance of winning his sergeants over to ILP despite the challenges he faced in achieving that goal.

*Area commander Kea:*

... but if our sergeant tells us yep that that can be done, then yeah it can be done, so they are the most influential leaders, if you can influence them then you can influence um what happens.

I described earlier in this chapter how managers at strong uptake sites made particular efforts to win supervisor commitment to ILP and recognised the importance of front-line supervisors support for ILP. These efforts paid dividends in commitment and innovation uptake. A good example comes from a key senior sergeant respondent at Takahē. The senior sergeant notes his own change in attitude in response to efforts from the district commander to win his commitment. He describes how the efforts of his district commander convinced him of merits of ILP gave him a sense of purpose and direction in his work, which were previously absent.
Key Senior Sergeant 1 Takahē:
… for the first time it’s worth getting up to come to work because you can actually, you’ve got a little bit of a template, of a road map, if you like of where we should be going and what, and how and not only that how we’re going to get there. So he’s told, he’s given you the road map but he’s also shown you how you’re going to get there so and we understand pretty well what we’re about. Previously it was all pretty much very flowery.

Imbuing supervisors with a sense of purpose and direction demonstrates how successful managers at strong uptake sites were at building supervisor support for ILP. If supervisors have bought into the “road map” (key senior sergeant 1 Takahē) officers are likely to follow.

My interviews with key respondents at weak uptake sites demonstrate that the presence of resistance to change was a major impediment to winning supervisor support for ILP innovation and practice. At strong uptake sites resistance was absent and supervisors largely supported ILP. As I established earlier in this chapter and in Chapter 5, both broad resistance and resistance nested in influential groups were evident at weak uptake sites. A key senior sergeant from Hihi notes resistance among the CIB and senior supervisors and suggests even the area commander may be resistant. The number of supervisors at my research sites was relatively small. With obvious resistance among CIB and other supervisors, the prospects of building the leadership coalition necessary for ILP uptake became immensely difficult.

Key senior sergeant 2 Hihi:
… Some of the perceptions from staff below but also some of the other senior supervisors – why change something that’s working? In my view it’s not working but that’s what we’re getting a lot of the time and that’s coming from the CIB, to a certain extent it’s coming from the area commander, that resistance to change is a big thing.
Managers across all research sites understood the importance of securing supervisor support for ILP. At strong uptake sites efforts to build confidence, encourage participation and develop a sense of purpose among supervisors captured their support for ILP. This support translated into supervisors’ prioritisation of ILP. Consistent with the literature, officers readily accommodate their behaviour to their immediate supervisors’ wishes and priorities (Becker et al., 1996; Dejong, Mastrofski, & Parks, 2001; Engel & Worden, 2003; Famega, Frank, & Mazerolle, 2005). My findings demonstrate that supervisors played an important role in fostering ILP innovation.

7.5 Organisational commitment and Job satisfaction

The affective attachment of workers to their organisation and job has been a focus of considerable research over many years – in management literature (Becker, Billings, Eveleth, & Gilbert, 1996; Greene, 1989; Hayeslip & Cordner, 1987; Herzberg, 1989; McCormick, Ilgen, & Warr, 2002) and police literature (Buzawa, Austin, & Bannon, 1994; Ford, Weissbein, & Plamondon, 2003; Roche & Arcury, 2002; Wilson & Beck, 1995). Job satisfaction assesses officers’ affective response to their jobs (McCormick & Ilgen, 1987). Beck and Wilson (1995) concluded that creating more meaningful police work such as allowing officers to complete tasks from start to finish might improve job satisfaction. Zhao, Thurman and He (1999) and the National Research Council (2004) suggest that a lack of broad research exploring job satisfaction in policing did not allow conclusions to be drawn about its relationship to police behaviour. A closely related factor is organisational commitment. Organisational commitment gauges the emotional attachment officers have to the organisation for which they work (Warr, 2002). Low levels of officer
organisational commitment have been associated with resistance to change (Beck & Wilson, 1995). Beck and Wilson (1995) found that organisational commitment can be confused with commitment to a local policing style. They found that commitment to a local policing style can be reflected in overall organisational commitment.

In this section I consider the following research questions. How important was organisational commitment and job satisfaction to the uptake of ILP innovation in New Zealand? What features at my research sites contributed to organisational commitment and job satisfaction? Where there differences in organisational commitment and job satisfaction at my research sites?

My survey tested officer feelings of satisfaction with their work and their feelings of attachment to their local police area. Table 7.4 presents the results from the officer survey after MANOVA testing, which examined the relationship between officers’ self-reported level of organisational commitment and job satisfaction and whether or not they worked in a strong or weak uptake innovation research site.

**Table 7.4: Organisational commitment and job satisfaction**

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1</td>
<td>Mātātā</td>
<td>x</td>
<td>ns</td>
<td>.002*</td>
</tr>
<tr>
<td>13.21</td>
<td>2</td>
<td>Takahē</td>
<td>ns</td>
<td>x</td>
<td>.030</td>
</tr>
<tr>
<td>12.39</td>
<td>3</td>
<td>Hihi</td>
<td>.002*</td>
<td>.030</td>
<td>x</td>
</tr>
<tr>
<td>13.21</td>
<td>2</td>
<td>Kea</td>
<td>ns</td>
<td>ns</td>
<td>.024</td>
</tr>
</tbody>
</table>

F = 4.962  df = 3  p < 0.002  Partial Eta Squared = .050;  * = p < 0.05  ns = not significant

As Table 7.4 shows, officers at the weak uptake site Hihi (M = 12.39) reported significantly lower organisational commitment and job satisfaction than
the three sites Mātātā ($M = 13.48, p = .002$), Takahē ($M = 13.21, p = .03$) and Kea ($M = 13.21, p = .024$). The most significant difference was between Hihi and Mātātā ($M = 13.48, p = .002$).

Officers at weak uptake site Hihi reported less affective commitment to their police area and job than their colleagues at both strong uptake sites and the weak uptake site Kea. I hypothesised that officers at strong uptake sites might report higher levels of commitment and satisfaction than officers at weak uptakes sites. I reasoned that the uptake of ILP and pursuit of crime reduction goals might provide officers with a greater sense of meaning and purpose in their day-to-day work. I considered that this might translate into greater commitment and job satisfaction. My hypothesis is partially supported, with officers at strong uptake sites reporting higher levels of organisational commitment and job satisfaction than officers at Hihi. My results are confounded by the finding that officers at weak uptake site Kea also reported high levels of organisational commitment and job satisfaction.

To explore my results I reviewed the means for officer group categories at Hihi. I checked any category group means between that appeared different for statistically significance using an independent sample t-test. There were no statistically significant differences between any officer groups within Hihi. The low levels of organisational commitment and job satisfaction reported in the officer survey were consistent across all officer group categories.

To investigate this finding further I turned to my interviews with key respondents. Key respondents suggested that officer morale at Hihi was low when my research was conducted. A key senior sergeant observed officer
behaviour that he considered indicative of weak emotional attachment to work and the local organisation.

*Key senior sergeant 1 Hihi:*

Out of 10 I’d give them a 5 at the moment. I see a lot of people on sick leave, a lot of people taking advantage of parental leave, the odd percentage who just when it gets tough, they don’t turn up for work – call in sick. There’s a few of them about. I don’t think morale is terribly good.

The senior sergeant at Hihi pointed to work pressures and staff shortages as the reasons for low morale. However, as I reported in Chapter 6, there was no statistically significant difference in input demand across three of my research sites, including Hihi. This suggests other explanations for weak organisational commitment and job satisfaction are likely. It is conceivable that historically officers may have had a lower emotional attachment to their local organisational and work at Hihi. As Moore et al. (1999) note organisational history can act as a sea anchor connecting officers to the past. My finding may reflect a longstanding feature of the area. The finding may also represent dissatisfaction with recent change efforts directed towards ILP innovation or dissatisfaction with other extraneous variables.

Interviews with key respondents at my other research sites suggested a level of consistency in general organisational commitment and job satisfaction. Respondents commented favourably on officers’ general commitment and their willingness to work hard. There was a clear distinction between strong uptake sites Mātātā and Takahē and weak uptake site Kea. At strong uptake sites officer commitment was directly related to ILP and the uptake of ILP, at Kea interview respondents described a generalised willingness to work hard. Testing the general attachment of officers to their organisation may mask the
particular locus of attachment. My findings in this chapter show that officers at strong uptake sites were much more committed to ILP.

Overall, my research findings show that low levels of organisational commitment and job satisfaction at Hihi were particular to Hihi. My research has identified low levels of specific officer commitment to ILP and low levels of general organisational commitment and job satisfaction. This combination of problems is unique to Hihi, but may have wider implications for police innovation. Innovation may be particularly difficult at police sites with a combination of low innovation-specific commitment and low levels of general organisational commitment and job satisfaction. This suggests a workforce that is disenchanted not only with innovation but more broadly with police work. In this environment managers may need to take particular steps to address both problems before innovation is likely to succeed.

In summary, organisational commitment and job satisfaction differed at my research sites. My findings of lower observed levels at Hihi are supported by interviews with key respondents and appear to be an idiographic feature of research site Hihi. Organisational commitment and job satisfaction are important to innovation uptake. The absence of organisational commitment and job satisfaction is likely to create a barrier to innovation uptake. A basic level of engagement by officers and officers’ emotional attachment to their job and organisation are important starting points for innovation. At three of my four research sites a consistent level of organisational commitment and job satisfaction was evident. This appears to be a background feature of the New Zealand Police. At one site this feature was deficient due to that site’s unique history.
7.6 Discretionary time

One of the most critical factors influencing the uptake of police innovation is the willingness of individual officers to commit their discretionary time to innovation-related behaviour. Researchers suggest that officers have significant blocks of undirected time, operate in a low visibility environment where their roles and requirements are often ambiguous (Bowling & Foster, 2002; Hill, 2003; Lipsky, 1980; Mastrofski, 2004; Sun, 2003). An examination of officer behaviour typically finds that up to three-quarters of officer time is self-directed or down time (Famega, Frank, & Mazerolle, 2005; Mastrofski, 2004). This time is used for personal breaks, general patrols and administration (Mastrofski, 2004). When officers are directed to engage in specific activities directions are often vague, so officers elect to wait for calls for service or engage in random patrols (Famega, Frank, & Mazerolle, 2005; Sun, 2003). Innovation uptake will be strongly supported, if officers can be motivated to commit discretionary time to innovation-related tasks or follow up innovation-related directions vigorously. Discretionary or self-directed time is time that is “free of assignments from dispatch or supervisors” (DeJong, Mastrofski, & Parks, 2001, p. 44).

This section addresses the following questions. How important was the willingness of officers to commit their discretionary time to the uptake of ILP innovation? Were there differences in officer willingness across strong and weak uptake sites? What features of weak uptake sites impacted on officer willingness to commit discretionary time?

My survey asked officers about their willingness to follow the recommendations of their local Intelligence Unit and their willingness to devote
free time to directed patrols, to patrol in hot spot areas and to complete bail checks. Table 7.5 presents the results from my officer survey after MANOVA testing, which examined the relationship between officers’ self-reported level of willingness to commit discretionary time and whether or not they worked in a strong or weak uptake innovation research site.

Table 7.5: Willingness to commit discretionary time

<table>
<thead>
<tr>
<th>Mean</th>
<th>Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
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<tbody>
<tr>
<td>12.70</td>
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<td>x</td>
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<td>.001*</td>
<td>.000*</td>
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<tr>
<td>12.10</td>
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<td>ns</td>
</tr>
<tr>
<td>11.32</td>
<td>3</td>
<td>.001*</td>
<td>ns</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>11.32</td>
<td>3</td>
<td>.000*</td>
<td>ns</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

F = 7.475  df = 3  p < 0.000  Partial Eta Squared = .074;  * = p < 0.05  ns = not significant

As Table 7.5 shows, officers stationed at strong uptake site Mātātā (M = 12.70) reported significantly higher officer willingness to commit discretionary time than officers stationed at weak uptake sites Hihi (M = 11.32, p = .001) and Kea (M = 11.32, p = .000). No other statistically significant differences were reported.

I hypothesised that officers at strong uptake sites would report much greater willingness to use their discretionary time to engage in ILP-related behaviours. My survey results support my hypothesis, with officers at Mātātā reporting much greater willingness to commit time to ILP behaviours than officers at both weak uptake sites.

My finding that officers at Mātātā were more willing to commit their discretionary time to ILP than officers at both weak uptake sites is consistent with results presented earlier in this chapter. My research has established that
officers at strong uptake sites were more knowledgeable about and committed to ILP and were more likely to believe their supervisors prioritised ILP. My finding also builds on results presented in Chapters 5 and 6. The willingness of officers to commit discretionary time can be seen as an outcome of features described in these chapters. More open boundaries, better leadership, informal participative management, better change management, a strong relationship with local government and a reduction in the influence of environmental factors all contributed to officers being willing to commit their discretionary time to ILP tasks.

In addition to these features, two characteristics of ILP development at Mātātā promoted officers’ greater willingness to commit their discretionary time to ILP. The first feature was the activity of the Mātātā Intelligence Unit in building positive relationships with local front-line officers. The second feature was the willingness of managers at Mātātā to complement efforts to encourage officer support for ILP with robust processes that shaped officer behaviour. This was achieved by putting boundaries on officers’ discretionary time and providing clear instructions to officers about what was expected of them.

The Intelligence Unit at Mātātā was active and deliberate in fostering a strong relationship with officers at Mātātā. The sergeant in charge of the Intelligence Unit at Mātātā contrasts the relationship between intelligence officers and local officers at Mātātā with equivalent relationships within the wider district. The sergeant compares the difficulties other Intelligence Units have in securing the cooperation of local officers with the high quality relationship seen at Mātātā. The sergeant points to purposeful efforts at Mātātā to foster goodwill between Intelligence officers and front-line officers. Other Intelligence units
were not “selling it right to them” (sergeant in charge Intelligence Unit Mātātā). According to the sergeant one approach to “selling” involves undertaking ILP tasks outside the strict requirements of the Intelligence officer’s job, to demonstrate that Intelligence officers are part of the “team” and “it’s not just a dictatorship” (sergeant in charge Intelligence Unit Mātātā).

Sergeant in charge Intelligence Unit Mātātā:

It, yeah it’s funny because I go to, we have the [District Intelligence Meetings,] which is the senior Intel\textsuperscript{73} group meetings with the other people in our district.

D: Hmm.

R: And things and we all get together and you hear the other Intel managers bitching and moaning about oh I can’t get my staff to do what I tell them on the DPRs\textsuperscript{74} and I can’t get my staff to do this, and they won’t do this and I’m thinking well are you selling it to them right. [Laughs] You know. What do you mean you can’t get them to do it. Um, do you ever go out with them. Like whoever’s working a late shift will actively go out.

D: Hmm.

R: And do bail checks as well. You know, if they’ve got some time to zip out and do bail checks.

D: Hmm.

P: And show that we’re actually part of a team it’s not just someone standing there and saying go and do this, go and do this, it’s not just a dictatorship.

The focus at Mātātā on building a positive relationship between Intelligence officers and front-line officers contributed to officers forming a favourable view about the Intelligence Unit and being more disposed to follow the unit’s recommendations. While other units within the same district struggled to get officer’s to commit discretionary time, at Mātātā the quality of the relationship

\textsuperscript{73} Intel – Intelligence.

\textsuperscript{74} DPRs – directed patrols reports, which are documents recommending where and when officers should patrol.
between front-line officers and Intelligence staff contributed to officer willingness to engage in ILP behaviours.

The second feature at Mātātā that promoted the use of discretionary time for ILP-related activities were efforts to put boundaries on discretionary time, provide clear instructions to officers and link ILP behaviour to local goals. Clear processes focused on tasking and reporting performance at Mātātā. Recommendations from the Intelligence Unit were clear, concise and explicitly linked to local goals. Officers were kept informed about crime data on a week-by-week basis and links were made between their efforts and reported crime reductions. A robust performance management regime monitored officer and group performance. This approach minimised opportunities for interpretation, laying low and electing to wait for calls for service or random patrolling (Famega, Frank, & Mazerolle, 2005; Sun, 2003). As the district commander at Mātātā observes, Mātātā officers were aware of how their actions would contribute to the goals of local crime reduction. The commander noted that there was direction and clarity about what officers were expected to do with their discretionary time.

*District commander Mātātā:*

Um, yeah I think Mātātā staff are um, that, that have a much greater knowledge on what they are trying to achieve and, and where they are in terms of achieving it. In terms of um, ah you know, their crime results where they are with burglary this week etcetera, etcetera I think that’s much more embedded in Mātātā than elsewhere. Ah, Mātātā has a fair degree of like, like um, I, I, I think a fair degree of direction in terms staff their, their, their discretion is more about how they’re doing something ah, but they’re quite, you know, they’re quite directive in terms of hey this is where we want you to be, when we want you to be there and these are the things we want you to look out for um, so um, you know, and so in terms of if you ah, talking about sort of like discretionary time um, I’m not sure that um, the way Mātātā manages, gives a huge amount of discretionary time to the staff.
Key respondents at weak uptake sites reported important differences in officer attitudes towards their discretionary time. Officers at weak uptake sites believed they needed to hold themselves in reserve and adopt a reactive posture, engaging in random patrols and waiting for calls for service. Officer behaviour was consistent with the standard model of policing (Weisburd & Eck, 2004). The sergeant in charge of the Intelligence Unit at Hihi noted that officers were “cruising, waiting for that call to a good job”. He describes officers’ lack of focus about what they were trying to achieve when they had discretionary time. According to the sergeant, the officers did not have a “list”, a clear plan for what to achieve that shift.

*Sergeant in charge Intelligence Unit Hihi:*

Oh, it’s, it’s they are still out there cruising, waiting for that call to a good job, you know they are out there looking for that good job, they just, I, I get the feeling that they’re not actually, they don’t actually have a list, oh I must do bail checks must do SAP,75 must do this, it’s I’m just out there cruising because I know there’s a good robbery that’s going to happen, I don’t, I think there’s a word for that I can’t remember.

D: So they are completely reactive?

R: Yes, very reactive …

This finding illustrates an important divergence in officer behaviour across my research sites. Officers at weak uptake sites committed their discretionary time to reactive policing, not to ILP. My research has established that officers at weak uptake sites were less committed to ILP than colleagues at strong uptake sites. My research shows that officers at weak uptake sites were more
committed to the standard model of policing (Weisburd & Eck, 2004) than colleagues at strong uptake sites.

The willingness of officers to commit discretionary time has not, to my knowledge, been directly researched before. Researchers have not directly established the willingness of officers to use their discretionary time to support a policing innovation. The willingness of officers to commit their discretionary time is an important precursor to actual innovation behaviour. Officers need to form an intention to commit discretionary time to performing innovation-related behaviours. From forming that intention they may or may not be able to perform the intended behaviour depending on circumstances and intervening factors. As Mastrofski and Ritti (1996) observe, officers need to be given the opportunity to perform behaviours that managers promote through training or reform. Once an intention to perform ILP-related behaviours is formed, officers need opportunities and a supportive environment to facilitate their ILP behaviours.

My research finds that officer willingness to commit discretionary time to ILP was important in supporting the uptake of ILP in New Zealand. Officers at one strong uptake site were significantly more willing to commit discretionary time to ILP than officers at both weak uptake sites. The Intelligence Unit’s engagement with front-line officers contributed to officer willingness to commit discretionary time. Broad encouragement for officers to support ILP was complemented with the judicious structuring of officer time and performance reporting to ensure minimum standards of performance were met. Finding the right balance of strategies that both placed effective limits on discretionary time and motivated officers to use that time constructively was important to the uptake of ILP.
7.7 Intelligence-led policing behaviours

A key objective of police reform since the late 1970s has been to see police officers moving from reactive to proactive policing behaviours. Proposed innovations have targeted officer behaviours such as problem solving and working with communities on crime problems (Bayley, 1989; Goldstein, 1990; Kelling & Moore, 1988). Often the delivery of actual changes in routine police behaviour has been disappointing (Allen, 2002; Maguire, 1997; Maguire, Shin, Zhao, & Hassell, 2003; Schneider, 2003; Scott, 2000, 2003; Townsley, Johnson, & Pease, 2003). A frequent observation has been the persistence of reactive styles of policing. Police often have difficulty incorporating proactive initiatives while still meeting the needs of reactive policing. This is despite evidence of the effectiveness of focused evidence-based policing initiatives on reducing crime and minimising the consequences of crime (Weisburd & Eck, 2004). Evidence suggests that police agencies are experiencing similar difficulties in managing the implementation of ILP reform (Cope, 2004; Ratcliffe, 2005).

In this section I assess the extent to which proactive ILP behaviours were performed in New Zealand. In particular, this section investigates whether the performance of ILP behaviours differed between officers stationed at strong and weak uptake sites. I investigate the following questions. How successful were strong uptake sites in getting officers to perform ILP behaviours? What features of strong uptake sites contributed to the uptake of ILP behaviours? What were the differences between strong and weak uptake sites in the performance of ILP behaviours by officers, and how can these differences be explained?
Chapter 7: Individual Factors

My research explored the willingness of officers to engage in ILP-related behaviours across my four research sites. My survey asked officers to report how often they engaged in a range of ILP behaviours. These behaviours included the provision of information to their local Intelligence Unit, checking offenders on bail, completing directed patrols and targeting prolific offenders. Table 7.6 presents the results from my officer survey after MANOVA testing, which examined the relationship between officers’ self-reported levels of ILP behaviour and whether or not they worked in a strong or weak uptake innovation research site.

**Table 7.6: Strategy-related behaviour**

<table>
<thead>
<tr>
<th>Mean Rank</th>
<th>Mātātā</th>
<th>Takahē</th>
<th>Hihi</th>
<th>Kea</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.13 1</td>
<td>x</td>
<td>ns</td>
<td>.000*</td>
<td>.017</td>
</tr>
<tr>
<td>16.93 2</td>
<td>ns</td>
<td>x</td>
<td>.046</td>
<td>ns</td>
</tr>
<tr>
<td>14.78 4</td>
<td>.000*</td>
<td>.046</td>
<td>x</td>
<td>ns</td>
</tr>
<tr>
<td>15.87 3</td>
<td>.017</td>
<td>ns</td>
<td>ns</td>
<td>x</td>
</tr>
</tbody>
</table>

F = 6.311 df = 3 p < 0.000 Partial Eta Squared = .063; * = p < 0.05 ns = not significant

Table 7.6 shows that officers at the strong uptake site Mātātā (M = 18.13) reported significantly higher levels of strategy-related behaviour than those at weak uptake sites Hihi (M = 14.78, p = .000) and Kea (M = 15.87, p = .017). Officers at the strong uptake site Takahē (M = 16.93) also reported significantly higher levels of strategy-related behaviour than officers at weak uptake site Hihi (M = 14.78, p = .046).

I hypothesised that officers at strong uptake sites would report more ILP behaviours than officers at weak uptake sites. These results provide strong
support for my hypothesis. Officers at strong uptake sites reported much higher levels of ILP behaviours than their colleagues at weak uptake sites.

I used my interviews with key respondents to explore my research questions and to test whether my survey findings could be confirmed. Some key respondents were in a position to compare ILP behaviours across strong and weak uptake sites. One of these respondents was the sergeant in charge of the Intelligence Unit at Hihi. The sergeant had recently worked in Takahē but now worked in Hihi, so could compare and contrast the performance of the two areas. The sergeant confirmed a considerable difference in performance of ILP behaviours between the two sites. The sergeant used the example of bail checks, describing a substantial gap in officer performance between officers stationed at Hihi and Takahē. The sergeant described a seven fold difference (checks 60 per week compared with 426) in the performance of bail checks between the two sites. The sergeant explained the difference by suggesting that officers at Hihi did not appreciate that bail checks have “an effect on crime”, suggesting that officers were not knowledgeable about the effects of high levels of bail checks or motivated to perform to a high level.

*Sergeant in charge Intelligence Unit Hihi:*

… in Takahē um one week we clocked up 426 bail checks in a week and for a small station with only 30 people on bail and only three members on a section that’s pretty good, whereas here they average 50/60 and they think that’s great, and they do 10 a night and they think that’s fantastic, they haven’t quite, they haven’t quite got over that step yet to, to actually realise that its pretty boring but it actually has an effect on crime.

Both self-reports and the experience of key respondents point to major differences in the performance of ILP behaviours between strong and weak uptake sites. This suggests that ILP innovation uptake had penetrated the
minds of officers and ILP behaviours were routinely being performed at much higher levels at strong uptake sites.

Innovation-related behaviours did not occur by chance or in a vacuum. The individual-level results presented earlier in this chapter have laid out considerable evidence of factors and features at strong uptake sites supporting the uptake of behaviours. Actual ILP behaviour occurred because officers at strong uptake sites were likely to be knowledgeable about ILP, committed to ILP, responsive to supervisors’ ILP priorities, committed discretionary time to ILP and followed through with ILP-related behaviour. These outcomes were achieved through managers’ efforts to motivate and inspire officers, build their self-confidence and confidence in ILP, and create an organisational environment that was receptive to and supportive of ILP behaviours.

An important additional feature driving officer ILP behaviour was the focus at strong uptake sites on continually improving ILP performance. The focus of that improvement was on achieving more and better quality ILP behaviours from local officers in furtherance of crime reduction goals. For officers this translated into constant review of the effectiveness of ILP behaviours and changing or, more often, increasing the desired frequency of ILP behaviours. There was pressure on officers to improve performance. A key senior sergeant respondent outlines the approach taken at Mātātā. According to the senior sergeant, the four elements to continuous improvement at Mātātā were: good intelligence analysis, good intelligence process and practice, strong leadership, and constant analysis for improvement.

*Key senior sergeant 1 Mātātā:*

So over time Mātātā actually developed a continuous improvement model where there was an emerging philosophy by management that for policing
to be effective there had to be good Intel-based\textsuperscript{76} systems, there had to be strong leadership driving messages around crime and crash reductions, there was to be constant analysis of systems for improvement and a recognition that in terms of um, resourcing police staff were the one resource that you had control of to develop and use to improve the performance of the station.

The focus on continual improvement was critical to the ongoing performance of ILP behaviours at strong uptake sites. There was internal pressure to not just maintain but improve performance. This feature of strong uptake sites was a key feature distinguishing strong and weak uptake sites. The National Research Council (2004, p. 95) described this feature as “continuing innovation” and identified it as critical for sustaining strategic police innovation. This is an important point. In the following quotation, the National Research Council (2004, p. 95) describes the importance of continual innovation in relation to COP and problem-oriented policing. The argument applies equally well to ILP. For any strategic innovation to flourish within a police agency, it must be accompanied by a commitment to ongoing innovation. ILP behaviours at strong uptake sites were underpinned by this commitment.

Often when we think about the process of innovation, we imagine that some new policy or program has been tested and found to be effective. Consequently, that new policy or program ought to be incorporated into the operational routines of all police departments. We are satisfied when the innovation has diffused to all police departments. But the ideas of community and problem-oriented policing are not simply programmatic ideas that are implemented and, once implemented, remain constant. The ideas of community and problem-oriented policing are that effective policing requires continuing innovation, not the constant use of a single operational method (National Research Council, 2004, p. 95).

My research findings have established significant barriers to officer ILP behaviour at weak uptake sites. When compared with their colleagues at strong

\textsuperscript{76} Intel – Intelligence.
uptake sites, officers at weak uptake sites were less knowledgeable about ILP, less committed to ILP, less likely to believe their supervisors prioritise ILP and less likely to commit discretionary time to ILP. Officers at weak uptake sites were more likely be exposed to inadequate training, managers with weak innovation knowledge, active resistance to change, poor ILP practice, imposed change and broad commitment to the standard model of policing (Weisburd & Eck, 2004). In these circumstances less actual ILP behaviour is unsurprising.

My survey findings report high levels of ILP behaviour at strong uptake sites and this is supported by evidence from my qualitative interviews. The observed differences in officer ILP behaviour are consistent with individual-level findings set out earlier in this chapter. The concentration on continual innovation at strong uptake sites ensured an ongoing focus on improving officer performance of ILP behaviours.

7.8 Conclusion

My survey results and interviews with key respondents have identified key factors and features supporting the uptake of ILP innovation in New Zealand. Individual-level factors, including officer innovation knowledge, officer commitment to innovation, officer perceptions of supervisor priorities, officer willingness to commit discretionary time and officer ILP behaviour, have all proved to be important in the uptake of ILP innovation in New Zealand. My research has demonstrated the explanatory and discriminatory power of these factors for officers with similar backgrounds and training and working for the same agency but stationed at different locations. Focusing on influencing these key individual-level factors has proven to be foundational to fostering ILP uptake.
My research has also identified features of strong and weak innovation uptake sites that contributed to the observed differences in individual-level factors. Table 7.7 summarises these features. The foremost influence was the leadership and personal qualities of key managers at strong uptake sites. Managers were professionally committed to pursuing local crime reduction. This overarching commitment led managers to investigate options to achieve crime reduction. This approach propelled managers to focus on ILP and, subsequently, continual innovation. Managers followed a pragmatic evidence-based approach to innovation. Ideas were tested and modified based on their utility in achieving crime reduction. The interpersonal skills of managers contributed to ILP development. The ability of managers to personally engage with and build the confidence of supervisors and officers was important. Managers engineered a local operational environment that supported the performance of ILP behaviours.

Other factors supported innovation uptake. Ratcliffe’s (2003) 3I model provided practical advice to police on how to “do” ILP. Far more than just a theory, the 3Is of interpret, influence and impact provide a practical framework to guide police practice and innovation development. Once established, commitment to ILP passed readily from one generation of officers to the next. Placing the Intelligence Unit at the centre of area activities was important. Guidance and leadership from the Intelligence Unit strongly facilitated innovation uptake.

This chapter contrasted individual officer factors that differentiated strong and weak uptake of ILP within a national police agency. It is remarkable to report such strong differences between police officers who on the face of it
share so much in common. Of particular interest is the finding that, in addition to ILP uptake, the two strong uptake sites in my study sample are committed to being continually innovative in support of crime reduction goals. While the National Research Council (2004) has identified commitment to continual innovation as critical to police reform, there is little evidence in the police literature demonstrating how and where police agencies have achieved continual innovation. This gap in the literature makes my findings important.

**Table 7.7:** Summary of features supporting or inhibiting individual-level officer factors affecting the uptake of intelligence-led policing (ILP) in New Zealand

<table>
<thead>
<tr>
<th>Individual-level factor</th>
<th>Features of strong uptake sites supporting individual-level factor</th>
<th>Features of weak uptake sites inhibiting individual-level factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officer knowledge of ILP</td>
<td>Formal training</td>
<td>Weak formal training</td>
</tr>
<tr>
<td></td>
<td>Promotion of Ratcliffe’s (2003) 3I model (interpret, influence and impact)</td>
<td>Weak manager knowledge of ILP</td>
</tr>
<tr>
<td></td>
<td>Leadership behaviours</td>
<td>Resistance to change</td>
</tr>
<tr>
<td></td>
<td>Emphasis on ongoing development and application of new knowledge</td>
<td>Confused processes</td>
</tr>
<tr>
<td></td>
<td>Tight coupling with practice</td>
<td>Confusion about reasons for innovation uptake</td>
</tr>
<tr>
<td></td>
<td>Manager knowledge of ILP</td>
<td></td>
</tr>
<tr>
<td>Officer commitment to ILP</td>
<td>Focus on commitment and building officer self-confidence and confidence in ILP</td>
<td>Compliance model</td>
</tr>
<tr>
<td></td>
<td>Leadership coaching officers, celebrating success</td>
<td>Absence of broad leadership coalition and critical leadership mass encouraged resistance</td>
</tr>
<tr>
<td></td>
<td>Officer participation and contribution</td>
<td>Weak manager innovation knowledge</td>
</tr>
<tr>
<td></td>
<td>Building supervisor support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intergenerational transmission of commitment</td>
<td></td>
</tr>
<tr>
<td>Individual-level factor</td>
<td>Features of strong uptake sites supporting individual-level factor</td>
<td>Features of weak uptake sites inhibiting individual-level factor</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>Supervisor priorities</td>
<td>Developing self-confidence and confidence in ILP, establishing a sense of purpose among supervisors</td>
<td>Resistance to change</td>
</tr>
<tr>
<td></td>
<td>Encouraging supervisor participation in ILP development</td>
<td></td>
</tr>
<tr>
<td>Organisational commitment and job satisfaction</td>
<td>Basic level of organisational commitment and job satisfaction necessary to support innovation uptake</td>
<td>Poor organisational commitment and job satisfaction at one weak uptake site additional barrier to innovation uptake</td>
</tr>
<tr>
<td>Discretionary time</td>
<td>Cumulative effect of efforts to build officer knowledge and commitment, influence supervisors and shape organisational environment Positive relationship with and leadership from Intelligence Unit Structured supportive organisational environment including limits on discretionary time, clear instructions, and effective and informed performance monitoring</td>
<td>Commitment to standard model of policing</td>
</tr>
<tr>
<td>ILP behaviour</td>
<td>Cumulative effect of efforts to build officer knowledge and commitment, influence supervisors and shape organisational environment Commitment to continual innovation</td>
<td>Cumulative effect of inadequate training, weak manager ILP knowledge, resistance to change, poor ILP practice, imposed change, and commitment to standard model of policing</td>
</tr>
</tbody>
</table>

I now turn from reporting my results to summarising my findings and drawing theoretical and policy implications. Chapter 8 considers my results in different ways, linking a variety of approaches to innovation research to a range
of theoretical, practice and policy implications. I draw on individual, structural and interactive perspectives to consider my findings and frame my conclusions. I consider the practical benefits of my research for police managers, and how policy-makers might use my findings to shape approaches to police innovation in the 21st century.
Chapter 8: Discussion and Conclusion

8.1 Introduction

Organisational innovation is difficult to achieve. It requires agility to innovate almost continuously and a capacity to experiment with everything from new products to fundamental reform of core business. Successful implementation of innovative practice also requires an organisational capacity to embrace and grow from a “healthy” level of resistance while at the same time overcome deep-seated, pervasive and counterproductive levels of defiance. By far the most challenging reform is embracing strategic change, with wide-ranging implications for organisational arrangements and external relationships. Global experiences with implementing community-oriented policing (COP), for example, demonstrates the struggles of police agencies to move beyond programmatic reform or administrative change towards more strategic innovation (King, 2003; National Research Council, 2004). My case study analysis of the implementation of intelligence-led policing (ILP) in the New Zealand Police (NZP) offers an opportunity to systematically explore the facilitators and barriers to a programme of strategic reform.

Widespread attempts to implement ILP in New Zealand came after a high crime police area successfully experimented with a series of grassroots, operational reforms loosely based on ILP principles. This police area faced staff cuts, gang problems and deep-seated public dissatisfaction in the late 1990s. The momentum behind the localised reforms captured the imagination of a core policy group and facilitated the forerunner to ILP, the New Zealand Crime and Crash Reduction model (see Chapter 4). My research project sought to understand how and why police enthusiastically adopted ILP
innovation in some locations and under some circumstances, but failed to take root in others. I contrasted and compared the influence of key factors on the uptake of ILP innovation within New Zealand using a framework of inquiry distilled from the innovation and police literature. I assessed the role of individual leaders, evaluated how interactive processes shaped the innovation life cycle and explored the role and emergence of resistance to change within influential internal groups.

This concluding chapter begins with a summary of my key research findings. I address my hypotheses and research questions as well as exploring themes emerging from my research that advance theories of public sector innovation. I consider the ILP innovation life cycle and explore how ILP innovation can develop into a system of continuous innovation. I conclude by discussing the policy and practice implications of my research. I start by comparing the ILP innovation outcomes at my strong uptake sites with an existing benchmark of successful ILP implementation.

8.2 Factors facilitating innovation

8.2.1 Implementing intelligence-led policing at strong uptake sites

Ratcliffe (2008) depicts 10 conditions that confirm the successful implementation of ILP. These are described in Appendix A and include features such as enthusiastic leadership, ILP operating at the heart of an organisation-wide approach with analysis being centred at the hub of the organisation. The presence of Ratcliffe’s conditions within an operational police area verifies the implementation of an ILP environment. My research has identified the factors and processes that lead to the implementation of Ratcliffe’s conditions. In this section I compare and contrast Ratcliffe’s conditions with my research findings.
By making this comparison I confirm that an ILP environment was established at my strong uptake sites and consolidate my research findings by linking Ratcliffe’s ILP conditions to the key factors and processes that led to those conditions. I am able to verify that the organisational and technical efforts observed at strong uptake sites were well directed towards ILP outcomes.

Table 8.1 compares key features of Ratcliffe’s (2008) conditions with my summary findings. These features were observed at the strong ILP uptake sites in my study sample.77

Table 8.1: Comparison between organisational features of Ratcliffe’s (2008) intelligence-led policing (ILP) yardsticks and Darroch’s research project findings

<table>
<thead>
<tr>
<th>Ratcliffe’s yardsticks</th>
<th>Darroch’s research project findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A supportive and informed command structure.</td>
<td>The actions of individual leaders literate in ILP were vital to driving innovation uptake and maintenance. Not only were leaders needed at the top, they were needed at all levels. Key leaders encouraged and coached individual officers and frontline supervisors. Ongoing leadership was necessary for the development of ILP.</td>
</tr>
<tr>
<td>Enthusiastic leadership endorses and actively promotes ILP and the use of ILP as the basis for strategic decision-making.</td>
<td>ILP was embraced as a strategic innovation that placed ILP at the heart of an organisation-wide approach at strong uptake sites. The activities at these sites revolved around ILP processes and activities. At weak uptake sites efforts were made to implement ILP as a programmatic reform.</td>
</tr>
<tr>
<td>2. ILP is at the heart of an organisation-wide approach.</td>
<td></td>
</tr>
<tr>
<td>Analysis needs to complement and support the whole organisation.</td>
<td></td>
</tr>
</tbody>
</table>

77 With one exception – I could not confirm that routine investigation was systematically screened out (see point 7 in Appendix A).
<table>
<thead>
<tr>
<th>Ratcliffe’s yardsticks</th>
<th>Darroch’s research project findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Crime and criminal analysis is integrated. Analysts work at the hub of operational policing activities in direct support of decision-makers at all levels.</td>
<td>At strong uptake sites, the Intelligence Unit was physically and operationally at the hub of policing activities. Analysts directly supported frontline and management decision-making.</td>
</tr>
<tr>
<td>4. Analytical and executive training is available. Support for strategic and tactical decision-making is available with appropriate training and resourcing. Executive education of the leadership role is available.</td>
<td>Analytical training was available on a national basis. Strong uptake sites supplemented this training by further developing and training local analysts. Senior local managers took advantage of available national training, but also worked hard to supplement their own knowledge of ILP.</td>
</tr>
<tr>
<td>6. Both strategic and tactical tasking meetings take place.</td>
<td>Strategic and tactical tasking meetings took place at strong uptake sites. Strong uptake sites endeavoured to predict future crime trends and plan tactics accordingly.</td>
</tr>
<tr>
<td>7. Data is sufficiently complete, reliable and available to support quality products and influence decision-makers.</td>
<td>Initiatives were under way to improve data quality as part of continual innovation at strong uptake sites.</td>
</tr>
<tr>
<td>8. Management structures exist to action intelligence products.</td>
<td>Strong uptake sites focused the allocation of resources to support the actioning of intelligence products across all parts of the local organisation.</td>
</tr>
<tr>
<td>9. Prevention, disruption and enforcement are used appropriately.</td>
<td>Features such as more open organisational boundaries, use of volunteers, and engagement with partners on crime prevention and disruption activities illustrate the diversity of crime reduction strategies employed.</td>
</tr>
</tbody>
</table>
Intelligence-Led Policing in New Zealand

As the Table 8.1 shows, organisational features suggested by Ratcliffe (2008) as critical to an ILP environment were evident at the strong uptake sites in my study sample. Both my officer survey findings and interviews with key respondents support the presence of an ILP environment at strong uptake sites, with some findings being particularly strong. For instance, the presence of highly motivated and informed leaders was very apparent. Not only were supportive and informed leaders present at the top, but strong ILP uptake sites demonstrated leadership coalitions throughout the rank structure.

Moreover, managers focused on initiatives to ensure that analysis was at the heart of local area activities and led initiatives to enhance ILP training. They directed tactical tasking meetings and championed efforts to improve data quality. Local managers ensured intelligence was at the hub of operational policing activities and focused on actioning intelligence products. In addition, broad initiatives were in place to ensure that third-party resources were brought to bear on disrupting and preventing crime in the community.

Comparing my research findings with Ratcliffe’s (2008) conditions confirms that an ILP environment was established at strong uptake sites. This supports my research findings by showing that the processes and factors utilised by managers at Mātātā and Takahē, successfully brought about an ILP environment. My research findings are linked to verified ILP innovation outcomes.

I now turn from reviewing ILP outcomes at strong uptake sites to summarising the overall findings of my research. I commence this section by summarising diagrammatically the key factors that impacted on the ILP innovation life cycle in New Zealand and highlighting their influence on stages of
the life cycle at my research sites. A detailed summary of my key findings in table form, including a description of the factors’ influence on ILP innovation and impact on the innovation life cycle is in Appendix H.

8.2.2 Key factors and the role of managers

My research proposed three broad hypotheses, suggesting differences between my research sites at the organisational, environmental and individual levels. In this and the following three sections I review my hypotheses and research questions. I summarise my overall findings and develop conclusions drawing on my research objectives. First I summarise my overall findings. I then focus on my results and at the organisational level. At the organisational level I proposed differences between strong and weak uptake sites arguing that strong uptake sites would report more commitment to organisational goals, less loose coupling, more permeable organisational boundaries, more flexible administrative apparatus, less formalisation and better use of technology. I also anticipated differences in culture, better change management and a more relaxed management style. I predicted important differences in leadership with more committed and engaged leadership likely to be seen at strong uptake sites.

Individual charismatic leaders and multiple nodes of leadership emerged as key factors in initiating and sustaining ILP innovation in New Zealand. Leaders were supported by an internal leadership network at each level within the local rank structure. Supportive leadership at the sergeant level in particular, helped secure frontline support for ILP. The role of leaders through both direct leadership and managing organisational factors was critical. The progress of ILP innovation through the life cycle from awareness to institutionalisation
(Rogers, 2003) was heavily dependent on both key leaders and successful leadership coalitions.

Figure 8.1 summarises the key factors influencing the ILP innovation life cycle in New Zealand. Figure 8.1 develops Figure 3.1, which presented hypothesised factors, by illustrating important factors my research has identified. I have used size and placement to show the comparative importance of different clusters of factors in supporting the innovation life cycle. As Figure 8.1 shows, organisational factors dominated and individual-level factors were critically important to supporting the implementation and institutionalisation stages of the innovation life cycle. The direction and size of arrows are used to illustrate the magnitude and direction of effects. Organisational factors interacted with environmental and individual factors, but overall strongly influenced outcomes at the individual level. I have also illustrated a shaded area in Figure 8.1 where threshold effects were important in supporting ILP uptake. Threshold effects describe the critical need for key factors to cross important thresholds for ILP to develop through the implementation and institutionalisation stages. I identify these factors and discuss their influence in more depth later in this chapter.

Figure 8.1 shows that organisational factors dominated the innovation life cycle. Organisational factors, utilised by key managers, drove the innovation process from knowledge and awareness through to institutionalisation. Organisational factors in particular the attitudes and characteristics of managers, were important in the early stages of the innovation life cycle where developing knowledge and learning were crucial to the emergence of ILP. Individual-level factors were critical outcomes of organisational level efforts and
were required conditions for the institutionalisation of ILP. Implementation and institutionalisation of ILP was thwarted, if key individual level outcomes such as individual officer commitment were not achieved. Organisational factors interacted with environmental factors to shape the necessary conditions for innovation uptake. Positive relations with local government for example, supported ILP development.

As Figure 8.1 illustrates managers of innovative sites demonstrated clear preferences for specific organisational features and management arrangements. Consistent with previous research findings, managers focused on developing informal and participative organisations (Ford, 2002; Moore et al., 1999; Metcalfe, 2001). Innovative sites used less formal and more flexible administrative arrangements and adopted participative management styles that elicited individual officer buy-in and contributions to ILP (see also Eck & Spelman, 1987; Sklansky & Marks, 2008; Toch, 2008; Wood, Fleming, & Marks, 2008). Many features of transformational leadership were evident with leaders focusing on coaching, motivating and teaching individual officers (see also Bass & Avolio, 1994, 1997). Managers at innovative sites also worked hard to build officer confidence in ILP and encourage officer self-belief in their ability to reduce crime using ILP. High-quality change management practices were employed. The overall outcome of these efforts was the emergence of a supportive ‘can do’ subculture. These efforts culminated in a local organisational environment that was innovation friendly and supported the development of new approaches and initiatives.
Figure 8.1: Summary of key factors influencing intelligence-led policing (ILP) innovation life cycle in New Zealand

- **Organisational Factors**
  - Driving Innovation: strong transformational leadership, commitment to crime reduction, informal open management style, management of change, open boundaries, centrality of Intelligence Unit, excellent technical ILP, innovation friendly environment, use of ILP model

- **Environmental Factors**
  - Interactions shape: officer perceptions of - environmental complexity, environmental stability, neighbourhood factors, demand for services. Importance of foundational/background relationships with local government and community

- **Individual Factors**
  - Critical outcomes: supervisor prioritise ILP, officer knowledge of ILP, officer commitment to ILP, officer willingness to commit discretionary time, officer performance of ILP behaviours

- **Knowledge and Awareness**
- **Assessment Evaluation Learning**
- **Implementation and Uptake**
- **Routinisation Institutionalisation**

- Threshold Effects

- Possible Revision and Abandonment
Ratcliffe’s (2003) 3I model (interpret, influence, impact) emerged as an important factor supporting innovation uptake (see Figure 1.1). The model provided a ‘language’ for key ILP concepts, and was used to communicate these concepts to supervisors and officers in an understandable way. In addition, the model provided managers with a clear ILP structure and aspirational goals. Managers were able to monitor the progress of ILP implementation by evaluating the ability of their local police area to both interpret the criminal environment accurately and impact on the criminal environment effectively.

Managers at innovative NZP areas also recognised the importance of inculcating both technically proficient and socially acceptable intelligence practice. For ILP to succeed, frontline officers needed to hold their local Intelligence Units in high regard. To ensure this, highly credible sworn officers were sought and trained for intelligence roles. Technical proficiency was demonstrated through skill in the use of information technology tools and consistency in developing quality intelligence products that focused on achieving crime reduction goals.

As well as expecting high technical standards, key leaders recognised and encouraged ILP performance by officers. Officers were encouraged to follow the suggestions of their Intelligence Units and the directions of the decision-

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78 Key ILP-related concepts include the role of the Intelligence Unit (to interpret the criminal environment and influence decision-makers) and the role of the decision-maker (to impact on the criminal environment).
Intelligence-Led Policing in New Zealand

Performance of ILP behaviours was benchmarked and improved over time. If encouragement failed and officer performance dropped below acceptable standards, more-directive transactional leadership behaviour came to the fore.

I noted in Chapter 2 that innovation can be set in motion in a variety of ways. The National Research Council (2004, p. 99) identified potential sources of innovation to include innovation by edict, through changes in court decisions or laws; through research or professional or auditing organisations; through stimulation by local government; through a confluence of problems and solutions; or through social learning. ILP innovation at my research sites was stimulated by both a confluence of problems and solutions (at Mātātā) and through social learning at my other sites. Informal learning through social networks (Linton, 2002; Weiss, 1997) was an important factor contributing to ILP development. The uptake of ILP through social learning was contingent on the qualities and interests of managers (Kimberly & Evanisko, 1981; National Research Council, 2004; Rogers, 2003; Young, Charms, & Shortell, 2001), with highly motivated managers likely to implement ILP more quickly. Diffusion through social learning was supplemented by more formal learning and development as the New Zealand Crime and Crash Reduction model emerged.

The decision-maker directs tactics and strategies intended to impact on the criminal environment (Ratcliffe, 2003).

The Crime and Crash Reduction model encouraged district and area commanders to implement ILP. The project was implemented through 2003, 2004 and early 2005. It has been described as a ground-up, socially networked, focused change management project (New Zealand Police, 2005). The crash component refers to motor vehicle crashes. Road policing and reducing road deaths and injuries make up a significant component of policing within New Zealand.
My research shows that an additional factor was important in stimulating the ILP innovation life cycle in New Zealand. At both strong uptake sites police managers identified a strong commitment to crime reduction as an important factor stimulating ILP development. Managers were seriously committed to crime reduction as a superordinate goal and set ambitious crime reduction targets for themselves. ILP provided a model for achieving crime reduction goals. I will develop the notion of a superordinate commitment to crime reduction stimulating the innovation life cycle later in this chapter. I will show that commitment to crime reduction was the most important of a cluster of factors that needed to achieve critical thresholds for ILP to become institutionalised.

8.2.3 Environment factors – background features and interactions

My environmental-level hypothesis proposed that strong differences would be seen between strong and weak uptake sites with innovative sites reporting more positive relationships with the media, local authorities, police unions and the wider community, than officers at non-innovative sites. In addition I hypothesised that officers at strong uptake sites would report more manageable input demand, less environmental complexity, more environmental stability and more consistency of behaviour across local neighbourhoods than officers at non-innovative sites.

Environmental factors were less influential on the uptake of ILP than organisational and individual-level factors. However, in spite of showing less direct impact on innovation, environmental factors were important in supporting the development of ILP. For example, a strong relationship with local government was an important precursor to successful ILP innovation and
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supported the innovation life cycle. Local government partnerships that focused on crime reduction supported ILP innovation. In the same way, stable police community relationships supported ILP development. Ensuring strong political and community relations greatly reduced the risk of a legitimacy crisis undermining innovation uptake.

In addition, my research highlighted interactions between officer attitudes and environmental factors. Officers at strong uptake sites were more likely to hold positive views about the environment. These officers also perceived more manageable demand for police services and less complex and more stable environments than officers at weak uptake sites. The characteristics of problematic neighbourhoods were also less likely to influence the decision making of officers at strong uptake sites. This meant officers at strong uptake sites were more likely to follow ILP directives in high crime neighbourhoods, an effect likely to facilitate the implementation of ILP.

Innovative sites demonstrated the capacity to develop and maintain leadership networks with key local government, central government and community partners. These networks were supported by more open organisational boundaries and a continuing focus on crime reduction. A failure to build external leadership networks can encourage resistance to change. Problematic resistance to change was less likely to develop where both internal and external leadership networks of sufficient mass and depth were established.

Strong ILP uptake persuaded officers to hold more positive views about the environment, encouraging them to believe they could reduce crime by supporting ILP, rather than being subject to unpredictable crime demands from
the environment. In contrast, officers at weak ILP uptake sites held more negative views about the environment and expressed more pessimistic views about their ability to influence the environment. In particular, they were more influenced by neighbourhood factors than were colleagues at strong uptake sites.

8.2.4 Individual-level factors

My individual-level hypothesis proposed that police officers at innovative sites would report important differences in attitudes and behaviour when contrasted with their colleagues at weak uptake sites. In particular I argued that officers would report higher levels of ILP behaviours and more knowledge of ILP innovation. Furthermore, I hypothesised that officers would report higher levels of job satisfaction and organisational commitment, greater willingness to use their discretionary time to engage in discretionary ILP-related behaviours and higher levels of commitment to ILP innovation.

At the individual level, my research established that officers at strong uptake sites were significantly more knowledgeable about and committed to ILP than were their colleagues at weak uptake sites. As Figure 8.1 shows, positive individual-level outcomes were critical to the successful implementation and institutionalisation of ILP. Officers at innovative sites believed their supervisors prioritised ILP. They were significantly more willing to commit their discretionary time to ILP and significantly more likely to perform ILP tasks than were colleagues at weak uptake sites. These individual-level factors were the outcome of the processes that commenced when managers introduced ILP.

Managers at strong uptake sites used organisational levers (for example, leadership, participation, and change management) to introduce ILP effectively.
and shape innovation-friendly local policing environments. Furthermore, managers actively encouraged the innovation process and demonstrated their willingness to trial new approaches, modifying or abandoning them based on their usefulness. At strong uptake sites officers and supervisors showed a readiness to continue the innovation process, to challenge assumptions, to pursue efforts to improve ILP and to achieve ongoing crime reduction goals. Innovation at these sites focused on ILP, but was also evident in methods to address other challenges local police faced. Indeed, innovative ILP thinking matured into broader deliberation about how organisational and environmental barriers to crime reduction could be overcome.

8.2.5 Research sites and the innovation life cycle

The interaction between organisational factors, the wider environmental and individual-level factors produced different outcomes at my four research sites. In part, these different outcomes were a consequence of how long these factors had been applied to the innovation life cycle. Mātātā was the most mature strong innovation uptake site; Takahē was still developing and institutionalising ILP. Despite this difference in maturity, there was a strong level of consistency in the features observed at strong uptake sites. The approach of managers to innovation uptake was remarkably similar. At both sites, managers used informal participative management approaches and relied on transformational leadership. There was a consistent focus on building officer and supervisor confidence in ILP and on the importance of individual officer contribution to achieving the goals of ILP. At both sites levels of officer ILP knowledge, commitment to ILP, supervisor commitment and reported ILP behaviours were high. Differences were evident between the sites in the use of technology:
Mātātā was applying technology tools more effectively than Takahē. Mātātā also demonstrated a more supportive subculture and the wider environment was more receptive to innovation and change. Finally, ILP was more embedded and institutionalised at Mātātā.

While similarities were evident between strong uptake sites, differences were more marked between weak uptake sites. Kea demonstrated more open resistance to ILP, and major internal conflict over the introduction of ILP was evident. Key managers were interested in ILP, but a failure to secure a critical mass of leaders undermined innovation uptake. At Hihi, there was less knowledge about and interest in ILP. Commitment to ILP was superficial, and ILP was largely seen as a move back to practices that had previously been in favour. Managers’ knowledge about ILP was weak, which undermined innovation uptake at both sites. Figure 8.2 places my research at different stages on the innovation life cycle and identifies the distinguishing features of these sites.

As Figure 8.2 shows each police area displayed distinctive features associated with their position on the ILP innovation life cycle. Mātātā demonstrated a mature ILP model with an innovation-friendly environment. A generational effect ensured that ILP passed from one cohort of officers to the next. Importantly, ILP had been adopted as a strategic innovation with a continuing emphasis on efforts to improve police effectiveness. At Takahē the process of institutionalising ILP was under way and there was a strong emphasis on learning and engaging frontline officer support for ILP.
Figure 8.2: Intelligence-led policing (ILP) life cycle – comparative stages and distinguishing features of study sites

- **Kea**: Active resistance, internal conflict, confusion about ILP
- **Hihi**: Passive resistance, weak knowledge of ILP, slow progress, absence of critical factors
- **Takahē**: Institutionalising ILP, emphasis on learning and engaging officer support
- **Mātātā**: Mature model, distinctive local subculture, innovation friendly, generational effect, developed strategic ILP

Levels:
- Knowledge and Awareness
- Assessment Evaluation Learning
- Implementation and Uptake
- Routinisation Institutionalisation

Effects:
- Threshold Effects

Possible Revision and Abandonment

Analysis of effectiveness of operational strategies, tactics and partnerships

Impact on criminal environment

Interpret criminal environment

Influence decision-maker
At weak uptake sites various obstacles to innovation still had to be overcome. Resistance to change was evident at both sites. At Hihi weak ILP knowledge and the absence of critical factors, such as a commitment to crime reduction and strong leadership nodes, hindered ILP uptake. ILP development was at an early stage, moving from learning to implementation. At Kea, active resistance, internal conflict and confusion about ILP meant ILP development was limited and there was a real danger that efforts to fully implement ILP might be abandoned.

8.2.6 Reviewing the literature

Notwithstanding the dearth of literature exploring police innovation, much of what I hypothesised, drawing on existing literature, proved to be important in supporting the ILP innovation life cycle. The contrasts between strong and weak innovation uptake were often as predicted. At strong innovation uptake sites managers focused on operating less formal, less bureaucratic and more participative organisations in a manner consistent with calls for police reform over many years (Kelling & Moore, 1988; Moore & Stephens, 1992; Skolnick & Bayley, 1988; Goldstein, 1990). Resilient leaders provided the impetus for innovative change and emphasised a transformational leadership style (Anscombe, & Tuffin, 2004; Dionne et al., 2004; Dobby, Dvir, Kass, & Shamir; 2004; Ford, 2002; Long, 2003; National Research Council, 2004). A strong association also existed between individual factors and innovation uptake. Officers at strong uptake sites were more knowledgeable; more committed to ILP, more willing to use their discretionary time to support ILP, and reported higher levels of innovation-related behaviour than officers at the other sites.
This consistency in the literature suggests that key factors and processes are important for supporting each stage of the innovation life cycle in police organisations. Across the whole life cycle (as Figure 8.2 shows), leadership and developing the right organisational environment is critical. At the implementation and institutionalisation stages individual factors come to the fore with individual officer innovation knowledge and commitment especially important. For innovation to commence and development to be sustained, sound community and local government relations are important.

My research supports some of the main criticisms of police made in recent decades. At strong uptake sites many of the features called for as a necessary part of police reform, such as reduced formalisation and more participative approaches, were evident (Eck & Spelman, 1987; Goldstein, 1990; Kelling & Moore, 1988; Maguire, 1997, Moore & Stephens, 1992; Skolnick & Bayley, 1988). At weak uptake sites more formalised and less participative approaches were apparent. My research demonstrates that less formal and more participative police organisations support innovative police reform. This finding is consistent with recent research demonstrating the importance of participative approaches in supporting reform (Wood, Fleming, & Marks, 2008; Toch, 2008).

In contrast, other factors did not shape the innovation life cycle as expected. The evidence for police culture influencing police behaviour is mixed, with little supportive empirical evidence (National Research Council, 2004). Despite this the police culture is an often-cited explanation for negative police behaviour and is often associated with police resistance to change (Moore & Stephens, 1991;
Maguire, 1997; Reuss-Ianni, 1983; Sarre, 1996; Skolnick & Bayley, 1988). My research failed to find that the traditional police culture had any direct or necessary influence on innovation uptake. Traditional police culture appeared to be a consistent background feature of the NZP, with no variability between strong and weak uptake sites. My finding is more aligned with recent studies questioning the impact and influence of police culture (Sklansky, 2007; Skolnick, 2008). Both my officer survey and interviews with key respondents showed that the traditional police culture was neutral with regard to innovation uptake. What emerged as important was how managers engaged with officers to neutralise any potentially negative expression of police culture and enhance positive aspects.

The clearest example of managing the police culture is shown in the different patterns of resistance to change at my research sites. My research shows that the presence of traditional police culture does not necessarily lead to problematic resistance to change. While features of police culture, such as solidarity and conservatism, are linked in the literature with resistance to change in police organisations (Sparrow, Moore, & Kennedy, 1990; Sadd & Grinc, 1994), I found that strong uptake sites used a combination of organisational strategies to manage natural reticence about change amongst officers. Managers recognised the interactive nature of resistance to change and addressed officer concerns as part of the innovation process (Lamb & Cox, 1999; Waddell & Sohal, 1998). Resistance was much more prominent at weak uptake sites, particularly among detectives, a finding consistent with research locating resistance to change among specialist groups (Skogan, 2008). At strong uptake sites potentially problematic resistance to change was managed through engagement, leadership and well-executed organisational strategies.
The failure or inability to employ these approaches at weak uptake sites allowed resistance to develop and harden.

Other factors failed to emerge as important in supporting innovation uptake as initially expected. My officer survey revealed no differences in officer commitment to their local police area. Officers across all research sites expressed a willingness to support their local area and goals set by the local police area. I hypothesised that officers at strong uptake sites would report greater commitment to local area goals than would colleagues at weak uptake sites. However, my research showed a broad commitment amongst NZP officers to supporting their local police area. I also hypothesised that officers would perceive a stronger coupling between local goals and expectations about acceptable frontline officer behaviour at strong uptake sites. This was not the case. Commitment to local area goals and the absence of loose coupling between general goals and acceptable officer behaviour were background features of the NZP operational environment that did not affect innovation uptake.

My study failed to find differences across my research sites for other factors due to idiosyncratic features of the New Zealand environment. No differences in officer perception of media coverage emerged across my research sites. I hypothesised that officers at strong uptake sites would be less influenced by media coverage than officers at weak uptake sites. However, no differences emerged. It may be that New Zealand is too small for meaningful local differences in media coverage. Community relations and the influence of police unions were consistent across my research sites. Again, this may be a consequence of particular features of the New Zealand policing environment.
The police union, the New Zealand Police Association, is progressive and demonstrates a willingness to support change (Berry, O’Connor, Punch, & Wilson, 2008; McGill, 1992; O’Connor, 2004). Community relations appeared to be broadly similar across my research sites with solid general community support for the NZP within the wider community.

Manager commitment to ILP was not important to supporting the innovation life cycle. Public commitment to ILP by senior management, by itself, was insufficient to persuade officers to support change. At one weak uptake site conspicuous senior management support for ILP did not translate into officer support. Management support, although stated clearly to officers, appeared to be too removed from day-to-day reality to influence officer behaviour. In the absence of other factors, senior management support for ILP was ineffective in facilitating officer support for ILP.

Whether these findings are specific to the New Zealand environment or are features of the wider policing milieu is an open question. Given the geographic isolation of New Zealand and its unique cultural influences it would be surprising if some features of ILP innovation life cycle in New Zealand were not unique. Good quality community relations and a commitment to local goals seem to be consistent features across my operational research sites. While many of my research findings can be applied to similar policing contexts, some features did emerge as idiosyncratic to the New Zealand policing environment.

### 8.3 Three theoretical themes

The structuralist, individualist and inter-actionist approaches to innovation research provide different paradigms for understanding the innovation life cycle in organisations (Slappendel, 1996). Each paradigm has implications for how
my case study of ILP in New Zealand advances our theoretical understanding of innovation. In this section I use these paradigms to identify three major theoretical themes stemming from my research and I explore implications for theory, I consider: the notion of continual innovation and the development of a system of innovation, the importance of thresholds for innovative success, and the role of resistance to change. I explore these three themes and analyse how they help to advance theories of public sector innovation. I also consider the implications of these themes for the ILP innovation life cycle.

The structural approach to the innovation life cycle focuses on the role of organisational factors such as management style, formalisation and boundaries in shaping innovation (Maguire, 2003; Slappendel, 1996). Structural factors were prominent in shaping innovation uptake in New Zealand and inform my theoretical explanations which identify key thresholds for ILP innovation. The individual approach explains innovation by focusing on leaders’ actions, motivations and qualities as the main explanation for innovation (Slappendel, 1996). My research posits the motivations and qualities of individual leaders as foundational to the emergence of continual innovation. In the next section, I consider the emergence of continuous innovation and propose the importance of individual leaders to the development of a system of innovation. The interactionist perspective considers the complex nature of innovation and the convergence and interaction of factors that often result in diverse and unexpected outcomes (Slappendel, 1996). This perspective is used to inform the role of resistance to change and shape theoretical constructs, focusing on the interplay and negotiation of resistance to change as part of the innovation life cycle.
8.3.1 Strategic innovation, continual innovation and the emergence of a system of innovation

While my research focused on police innovation, the innovation life cycle is an important concern in the wider public sector. The National Research Council (2004) describes the paucity of research and understanding about the innovation life cycle in police organisations. This weakness in the research literature extends beyond policing, with important gaps in the broader public sector literature. Public sector innovation research focuses on the challenges, dilemmas and risks of innovation in the public sector (Altshuler, 1997; Borins, 2001; Lipsky, 1980; Zegas, 1997). Researched innovations are generally in house and small scale rather than strategic (Borins, 2001). Overall, there is much less research on public sector innovation and organisational change when compared with the general management and organisational literature (Fernandez & Rainey, 2006). As in the policing literature, the wider public sector innovation literature fails to analyse the process and antecedents of continuous innovation in the public sector (Hartley, 2005; National Research Council, 2004). The National Research Council (2004, p .95) emphasises the importance of “continuing innovation not the use of a single operational method” to enable police to meet the varied and heterogenous challenges they face.

A notable exception to the paucity of continuous innovation literature is the work of Moore (2005). Moore (2005) suggests that achieving continuous innovation in the public sector is more difficult than in the private sector, because of fundamental differences in the nature of public and private sector organisations. Private sector organisations are expected to create and implement ideas (Moore, 2005). This is part of the raison d’être of private sector organisations, they are designed and expected to both generate and
implement new ideas. On the other hand, public sector organisations are merely expected to implement ideas created for them (Moore, 2005). Therefore, while private sector organisations generate the ideas and processes necessary to innovate strategically and continuously, public sector organisations rely on political processes to develop ideas and remain strategically precedent-bound (Moore, 2005). The nature of the public sector focuses on implementing programmes and making administrative or technical changes, rather than undertaking strategic reform.

In spite of these difficulties, it was never intended that police would adopt innovations such as COP, problem-oriented policing (POP) and ILP as simple technical, programmatic or administrative reforms (that is, that these reforms would remain activities remote from day-to-day reactive and investigative policing) (National Research Council, 2004). These innovations were intended to reshape policing by redefining goals, success criteria and core operational activities (National Research Council, 2004). They were intended to be adopted as strategic innovations with logical consequences flowing from the strategic level to planning and operational activities (National Research Council, 2004).

Since the late 1970s there has been considerable debate over the extent to which major police reforms like COP and POP have actually changed police practice (Braga & Weisburd, 2007; Weisburd & Braga, 2006; Weisburd & Eck, 2004). There is evidence that these innovations have achieved little more than superficial change and that reforms such as CompStat, which strengthen traditional police command structures and established police responses, have fared much better than innovations such as COP and POP, which do not (Braga & Weisburd, 2007; Weisburd et al., 2003). While the language of COP is
prominent in many police agencies, an assessment of day-to-day organisational behaviour within those agencies quickly establishes the pre-eminence of the standard model of policing with strong police preferences for law enforcement, rapid response and after-the-fact investigation (Weisburd & Eck, 2004). COP operates, at best, as a programme of discrete community-related activities (Bayley, 1989; Fleming & O’Reilly, 2007; Famega, Frank, & Mazerolle, 2005; Sarre, 1996; Weisburd & Eck, 2004).

This situation raises important questions about police innovation, questions about the place of strategic reform and what can be done to normalise innovation within police organisations. The National Research Council (2004, p. 96) reviewed these issues and highlighted the lack of understanding and research about these issues and framed two important questions, which my research addresses. What caused or allowed police organisations to embrace strategic change? What causes or allows the police to embrace the kind of continuously innovative organisation that seems necessary for them to achieve their full potential?

In Figure 8.1, I presented my findings describing key factors impacting on the innovation life cycle. Figure 8.3 develops these findings and illustrates how continuous innovation processes developed or were emerging at strong uptake sites. The adoption of ILP as a strategic innovation was stimulated by six critical factors achieving significant thresholds. Adopting ILP as a strategic innovation in turn stimulated the emergence of broader-based continual innovation. The emergence of these features constituted the development of a system of innovation focused on crime reduction.
Figure 8.3: Emergence of a crime reduction system of innovation

Innovation Uptake
Critical Factors

1. Superordinate management commitment to crime reduction &
2. Critical mass of leaders at each level in the chain of command
3. Supportive overall organisational environment
4. Frontline support / commitment
5. Technical and social challenges met
6. Active use of practical ILP model

Stimulates

Strategic ILP Innovation

Continuous Innovation

- Analyse operational, criminal and wider environment for barriers to crime reduction and general effectiveness
- Analyse effectiveness of solutions
- Implement solutions
- Interpret criminal environment
- Influence decision-maker
- Analysis of effectiveness of operational strategies, tactics and partnerships

Impact on criminal environment

1. Superordinate management commitment to crime reduction
2. Critical mass of leaders at each level in the chain of command
3. Supportive overall organisational environment
4. Frontline support / commitment
5. Technical and social challenges met
6. Active use of practical ILP model
As Figure 8.3 shows, the actions and motivations of individual leaders were central to driving these processes. Highly motivated leaders, driven by a superordinate commitment to crime reduction, initiated a process of strategic ILP innovation. Successful strategic innovation was based on six critical factors: developing a strong over-arching commitment to crime reduction, achieving critical leadership thresholds, establishing a supportive organisational environment, building frontline support, meeting technical and social challenges and utilising a practical ILP model. The importance and development of these ‘threshold’ factors is explored in more detail in the next section. With these factors in place strategic ILP could develop and mature.

The maturing of strategic ILP in turn stimulated a broader process of continuous innovation. Management thinking turned from the development of ILP as a response to crime reduction, to considering wider barriers and obstacles to police crime reduction and general effectiveness. Managers focused not just on ILP as a response to crime problems but on how overall police effectiveness could be enhanced to support crime reduction goals.

My research posits the actions, motivations and qualities of individual leaders as foundational to the emergence of a system of innovation, incorporating strategic and continuous innovation processes at strong uptake sites. My research highlights the explanatory power of the individual paradigm (Slappendel, 1996) in explicating the development of these key processes. The intention of key leaders was to reshape local policing using ILP. Individual leaders used Ratcliffe’s (2003) 3I model to support the innovation process, structure management thinking and provide the vehicle for focusing crime reduction efforts. Managers were willing to pursue the logical consequences of
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management thinking as this turned from addressing the implementation of ILP to considering how wider obstacles to crime reduction could be overcome. Key outcomes of this thinking included re-imagining external relationships, work methods and goals, and reconsidering how core activities could support crime reduction. This process exemplifies strategic innovation (King, 2000; Moore, Sparrow, & Spelman, 1996; National Research Council, 2004).

A further indicator of the continuous cyclical nature of the innovation process at strong uptake sites was the presence of a generational effect (Moore et al., 1999). The ILP model at strong uptake sites passed from one ‘generation’ of officers to the next ‘generation’. Managers described how new officers would quickly learn the intelligence-led model, following the lead of older officers. Managers explained that new officers adapted quickly, not understanding there were alternatives to ILP. In turn, these new officers contributed ideas and energy to the development of the innovation process. ILP was renewed and reinvented as these officers were brought on board.

The focus of my research is on the innovation life cycle and establishing the impact of key factors on the innovation life cycle. The life cycle of a discrete innovation such as ILP, can be distinguished from a system of innovation. A system of innovation is characterised by a “contingent focal problem” that “acts as a focusing device for the innovation” (Tether & Metcalfe, 2003, p. 438). A system of innovation seeks solutions to a problem or cluster of problems in a dynamic and ongoing way; developing, trialling and implementing solutions. A system of innovation describes the factors and processes that influence the “development, diffusion and use of innovations” (Edquist, 1997, p. 14). The process described in Figure 8.3 is a system of innovation (Edquist, 2001).
Systems of innovation can exist nationally or within organisations and industries (Edquist, 2001), addressing diverse problems from managing congestion at airports (Tether & Metcalfe, 2003) to managing information systems or treating disease (Consoli, 2007).

Figure 8.3 describes the system of innovation relevant to the emergence of ILP and continuous innovation at strong innovation uptake sites in my study sample. The focal problem for the system was crime reduction. This is a critical point. Innovation systems research emphasises the importance of a clear purpose as essential to the development of a system of innovation (Consoli, 2007; Edquist, 2001). Superordinate commitment to crime reduction allowed factors within the police area to converge on the problem of crime reduction and this stimulated both the adoption of ILP and the emergence of continual innovation. Commitment to crime reduction allowed the factors and features of strong uptake site to coalesce into a coherent overall innovation system.

My research findings fill gaps in the policing and public sector literature, in particular our understanding of how a continuous system of innovation can emerge within a police organisation. The convergence of ILP innovation, superordinate commitment to crime reduction and other key factors stimulated the emergence of an overall system of innovation focused on crime reduction. This system led to a continuous cycle of implementation, review and analysis focused around crime problems.

8.3.2 Innovation and threshold effects

Organisational innovation can also be understood by considering the role of structural factors in the innovation life cycle (Slappendel, 1996). Using this
approach the role of individual leaders is considered one of many defined objects or practices contributing to the innovation process. Figure 8.3 identified six factors as essential precursors to successfully adopting ILP as a strategic innovation. In this section, I discuss these factors and describe how they supported the adoption of ILP innovation. In particular, I consider the importance of these factors in achieving critical thresholds for ILP to develop as a strategic innovation. I also describe how these factors contributed to the emergence of an overall system of innovation.

The innovation literature defines a threshold as the number of social units that must adopt an innovation before an individual social unit will adopt (Rogers, 2003). The idea of a threshold or tipping point comes from the epidemiological literature, which describes how rates of infection or disease increase exponentially beyond a critical point (Chan Kim & Mauborgne, 2003). However, the concept also has broad application in the social sciences in areas such as riot behaviour, rumour diffusion, strikes, voting and migration (Granovetter, 1978). I use the term ‘threshold’ in this positive sense, for example, when a threshold was reached in the quantity and location of leaders in the organisation supporting innovation ILP innovation proceeded rapidly. I also use the idea of a threshold in a zero-sum way. Based on my research findings, certain critical factors needed to be present to support innovation. If these factors were absent, ILP innovation struggled and strategic ILP innovation did not proceed (for example, my research finds commitment to superordinate crime reduction goals was essential for ILP innovation to fully develop).

In this section, I theorise from my research findings using a structural focus. The six key factors I identify in this section were critical to the uptake of
innovation in the operational NZP areas that made up my study sample. However, under different circumstances, perhaps involving a different innovation, a different sized or differently configured police organisation, or a different country, various factors or distinct clusters of factors might come into play. Both the general and police innovation literature emphasise the importance of idiosyncratic features in shaping the innovation life cycle. Caution needs to be exercised in making sweeping statements about the importance of individual factors or clusters of factors.\textsuperscript{81} My findings and theoretical proposals are presented with this qualification.

My research findings identify six factors that are crucial to innovation uptake in the New Zealand context. The foremost precursor factor is the adoption of crime reduction and prevention as a superordinate goal. Taking crime reduction goals seriously promoted a search for innovative solutions and a willingness to experiment. Managers at strong uptake sites viewed the most important function of police to be crime reduction and other police roles were secondary or supporting this goal. This commitment stimulated the strategic adoption of ILP innovation where operational strategies, tactics and partnerships were tested for their effectiveness in reducing or preventing crime. Commitment to ongoing crime reduction underpinned the development of the continuous innovation process. Continuous innovation emerged in an attempt to keep pace with the unrelenting demands of reducing crime and finding ways to get the best results from available resources. Managers were continually reviewing organisational features for effectiveness in supporting crime reduction. Commitment to superordinate crime reduction was pervasive and strong.

\textsuperscript{81} See Borins (2001), Burns (2003), Light (1998), Slappendel (1996), Walker (2007) and Wolfe (1994) for further discussion on this point.
The second factor was achieving critical thresholds in the depth and breadth of leadership support for ILP innovation. Unless a critical threshold of leadership support across all levels of the police hierarchy was achieved, the prospects for innovation were greatly diminished and likelihood of adopting ILP as a strategic innovation was nil. Critical gaps in leadership support at weak uptake sites created opportunities for resistance to coalesce around uncommitted or hostile leaders. If a critical mass of leaders was not established at each level in the chain of command, the transmission of support for innovation was interrupted. Whether committed police leaders are developed locally or imported into critical positions, leadership thresholds need to be achieved.

A supportive organisational environment was the next essential factor. As Mastrofski and Ritti (1996) discuss, the failure to introduce innovation into a supportive environment quashes innovation uptake and development. My research points to an informal, participative local environment as being essential. For both ILP innovation and continuous innovation to flourish, new ideas need to emerge and experimentation needs to be possible. Managers, supervisors and officers need to be able to trial new approaches to the changing problems of the criminal environment and the challenges of achieving crime reduction with limited resources. A supportive environment is a critical threshold for innovation to police innovation.

Establishing individual officer support for innovation is vital. The strongest features of my research were differences at the individual level. Concentrated efforts were made to establish officer knowledge about, commitment to and confidence in ILP. This translated into a willingness to commit discretionary
time and perform ILP behaviours. A failure to achieve a threshold of frontline officer support is a fatal barrier to innovation uptake. Changes in the behaviour of frontline officers are often the most challenging aspect of police reform and the area of most consistent failure (Finnane, 1999b; Moore et al., 1999; Sadd and Grinc, 1994). My research shows it is possible to establish support for innovation and demonstrates how this can be achieved.

ILP presents specific technical and social challenges. Overcoming these challenges was essential to innovation uptake. These challenges include structuring ILP correctly, developing quality intelligence products, capturing the imagination of decision-makers and ensuring intelligence units are socially accepted (Cope, 2004; Taylor, Kowalyk, & Boba, 2007; Ratcliffe, 2008). These challenges were successfully negotiated at strong uptake sites. Credible intelligence products were consistently developed and translated into actions at the front line. Intelligence Units were placed at the heart of local area operations, and specific efforts were made to ensure Intelligence Units were socially accepted. Decision-makers supported the intelligence process.

Finally, the presence of a clear ILP model facilitated the innovation process. Ratcliffe’s (2003) 3I model provided a prototype that allowed managers to clearly communicate the essential components of ILP to officers. The model also provided a framework for managers to assess and benchmark the development of local ILP. Where managers, frontline supervisors and officers achieved a good understanding of the model, this greatly enhanced the prospects for innovation uptake. The importance of a simple model cannot be overstated. Ratcliffe’s (2003) 3I model communicated powerful ideas about what ILP was and, more importantly, how police should “do” ILP. The model
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clarified roles by describing key relationships and functions. Without a ‘model’ it is certain that general ILP uptake would have struggled and strategic adoption would have been impossible. Constant debate about what ILP was and how it should be implemented would have undermined development. Strong uptake sites embraced the model and used it fully.

Table 8.2 summarises the six critical factors identified in my research and discussed in this section.

<table>
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<th>Critical factors</th>
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<tbody>
<tr>
<td>1. Manager commitment to superordinate crime reduction goals.</td>
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<tr>
<td>2. Critical mass of leaders at each level in the chain of command.</td>
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<tr>
<td>3. Supportive overall organisational environment.</td>
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<tr>
<td>4. Developing frontline support for and commitment to intelligence-led policing.</td>
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<tr>
<td>5. Meeting the technical and social challenges of intelligence-led policing.</td>
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<tr>
<td>6. Use of a practical model communicating powerful ideas.</td>
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In this section, I have used a structural lens (Slappendel, 1996) to identify six factors critical to the strategic adoption of ILP. When the six structural factors were present and crossed key thresholds, the ILP innovation life cycle was sustained, continuous innovation was able to develop and strategic ILP emerged. The convergence of the six factors encouraged a system of innovation (Consoli, 2007; Edquist, 2001; Tether and Metcalfe, 2003) to emerge at strong uptake sites, focused on crime reduction goals and continual innovation to achieve those goals.

The presence of these critical factors is especially important for the strategic adoption of innovation; if an innovation to represent more than technical or
programmatic change these critical factors need to be in place. Furthermore, it strategic innovation develops this is likely to stimulate a broader process of continuous innovation. The emergence of strategic and continuous innovation represents a system of innovation focused on crime reduction. My research adds to our theoretical understanding of the innovation process in police organisations and the wider public sector. While the study of innovation can be complex and contradictory (Damanpour & Schneider, 2006; Slappendel, 1996; Wolfe, 1994), my research has identified six factors critical to the strategic adoption of ILP, which builds on the existing police innovation literature. My findings identify important pathways and milestones in the police and public sector innovation process.

8.3.3 Resistance to change

In this section, I consider the role of resistance to change in the adoption of ILP in New Zealand using an interactionist perspective (Slappendel, 1996). The interactionist perspective focuses on the outcome of interactions between factors; innovation is characterised as a complex and interactive process (Slappendel, 1996). This section considers how resistance to change emerged from interactions with organisational and other factors. First, I review what is known about resistance to change and then I consider what my research established about resistance to ILP innovation in New Zealand.

Resistance to change involves actions by employees in an organisation to stop, alter or delay change (Waddell & Sohal, 1998). Early research portrayed resistance to change as a negative phenomenon, a challenge to the authority of the change agent and something to be overcome (Coch & French, 1948; Dent & Galloway Goldberg, 1999). Resistance to change is now seen as multi-faceted
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and interactive; research focuses more on how to utilise resistance to change as part of the innovation process (del Val & Fuentes, 2003; Lamb & Cox, 1999; Waddell & Sohal, 1998).

Studies link resistance to change in police organisations with a wide variety of factors. These factors include boundary defensiveness, such as sworn officers failing to accept civilian analysts (Cope, 2004); weak implementation efforts (Skolnick and Bayley, 1988); difficulties implementing technology (Moore et al., 1999); knowledge gaps (Goldstein, 2003; Ratcliffe, 2004, 2005, 2008; Tilley, 2003b; Townsley, Johnson, & Pease, 2003); leadership failures (Bass and Avolio, 1994, 1997); the challenges of the police culture (Cochran and Bromley, 2003; Paoline, 2003; Rosenbaum, Yeh, & Wilkinson, 1994; Reiner, 2000; Skolnick, 2008); and the effect of shortcuts workers adopt at the front line (Lipsky, 1980; Sparrow, 2000; Wells, Falcone, & Rabe-Hemp, 2003). Typically, research links the emergence of resistance to change with some deficiency or weakness; for example, weak change management is associated with resistance to change (Skolnick and Bayley, 1988).

Resistance to change was clearly evident at weak innovation uptake sites in my study sample. Consistent with previous research findings, resistance to change was strongest in the Criminal Investigation Branch, a specialist group of detectives (Skogan, 2008). Active resistance to change coalesced around unsupportive leaders. Two varieties of resistance to change were observed. One was active and oppositional, viewing ILP as a clear threat to the existing status of detectives and others. Hostility towards ILP innovation was centred among detectives, but penetrated other groups. The other variety of resistance
was more passive and laissez-faire, essentially a disinterest in ILP. Officers believed that ILP was likely to recede, if ignored for long enough.

The interactions of ILP with different factors and features at my research sites led to different styles of resistance to change and different patterns of innovation uptake. One way to characterise these different outcomes is to use the emergence of subcultures to understand my findings. Recent research has highlighted growing divergence in police cultural phenomena. Factors such as changes in recruiting practices, increased educational levels among officers, as well as demographic and gender shifts are seen as promoting greater diversification in the police cultural outlook (National Research Council, 2004; Sklansky, 2007; Skogan, 2008). Research posits that while some fundamental elements of the police culture, such as solidarity and suspicion persist, beyond this baseline, police subcultures can diverge considerably (Sklansky, 2007). My research strongly supports this view.

My results findings identified a consistent NZP culture, typical of the widely recognisable police culture (Foster, 2003; Goldsmith, 1990; Reuss-Ianni, 1983). However, beyond this, distinct local police subcultures were evident at my research sites. My research findings look past the archetypal police culture to what Sklansky (2007, p. 20) describes as the “new complexities of police identity, and dynamic processes within the police workforce”. The uptake of ILP at each site generated different patterns of resistance, uptake and different local subcultures. For example, at innovative site Mātātā, a strong, mature ILP subculture was evident with features such as the intergenerational transmission of support for ILP from senior to junior officers (Moore et al., 1999). This culture was frequently described as a ‘can do’ subculture with a local environment that
was receptive to innovation. Likewise at innovative site Takahē, an emerging ILP culture with strong officer support and committed leadership was apparent. At Kea, the subculture was marked by resistance, and at Takahē, the early stages of ILP development were detected.

At strong uptake sites, resistance to change was negotiated with resistant officers rather than overcome or overwhelmed. Resistance to change was tolerated – to a point. The focus at these sites was winning commitment to ILP from officers. To achieve this, emphasis was placed on building officer confidence in ILP, rather than suppressing resistance to change. Managers would work one on one with officers, taking time to win converts to ILP. The utility and energy a ‘convert’ could bring to the continuing uptake of ILP was recognised by managers and other supervisors. Managers valued influential and enthusiastic internal allies who became convinced about the merits of ILP and changed views. The symbolism of conversion was powerful to other officers.

Recent policing research has emphasised the importance of participative environments in supporting or facilitating change in police organisations (Beck & Wilson, 1997; Dick & Metcalfe, 2001; Eck & Spelman, 1987; Goldstein, 1990; Lurigo & Skogan, 1994; Toch, 2008; Wood, Fleming, & Marks, 2008). My research builds on these earlier findings. My research shows that creating a participative environment was essential, if resistance to change was to be successfully addressed. In particular, the coupling of opportunities to participate within a strong learning and knowledge environment paid dividends. At strong uptake sites, officers could ask questions, explore their concerns and find a receptive environment, an environment capable of addressing their issues.
and equipping them with the knowledge they needed to mollify their resistance to change. Klein and Sorra (1996) emphasise similar factors as critical to overcoming resistance to change. They point to the importance of the organisational climate and the values fit between the innovation and the workers. My findings are consistent with this research. At sites with both the right organisational climate and direct efforts to build officer commitment, resistance was harnessed and strong ILP uptake emerged.

In this section, I have explored how ILP innovation interacted with features of my research sites to shape resistance to change and different police subcultures at my research sites. The negotiation of resistance to change by using participative management and leadership behaviours turned potentially resisting officers into positive change agents. Unresolved officer concerns at weak uptake sites generated distinct resistance subcultures, one passive and one aggressive. Exploring the diverse interactions between innovation uptake and the features of research sites provided a useful methodology for framing and theorising my research results.

8.4 Research limitations

Any research must guard against weakness in the research design. A possible weakness in the approach taken in my study involves the site selection process, pre-determining results. It is possible that the panel of experts were, for example, selecting for the same factors explored in the study. Care was taken to ensure this was not the case. Sites were selected for high level or innovation specific phenomena suggesting strong or weak uptake of ILP, such as quality intelligence products or development of ILP processes. More general organisational or environmental factors or specific qualities of individual staff
were not part of the selection process. Innovation is a complex phenomenon however and the potential for design weakness was recognised and guarded against.

The literature is not strong on valid and reliable measures of innovation and closely related phenomena. Despite my use of the literature, consulting with experts and pilot testing my survey instrument, some of my measures had limitations. In particular, three limitations arising from factors assessed as part of my officer survey were identified. The measurement of three factors could have been improved to more closely assess their influence on the uptake of ILP. The factors were: goals; loose coupling; and boundaries.

8.4.1 Limitation – measurement

I used the factor goals to assess officers’ attitudes towards the general goals of the local police area. Both officer survey findings and interviews with key respondents confirmed that officers across all research sites were committed to supporting their local area and the goals of their local area. However, my interviews established that specific ILP-related crime reduction goals were important to stimulating innovation at strong uptake sites and crime reduction goals influenced officers at those sites. Calibrating my survey to test specifically for commitment to ILP-related crime reduction goals, may have revealed differences between strong and weak uptake sites. Such a result would have been consistent with my interview findings, which showed officer support for specific ILP-related goals at strong uptake sites.

In a similar way measurement of the factor loose coupling could also have been better calibrated. Loose coupling evaluates the strength of the relationship between high-level organisational goals and acceptable or
endorsed frontline officer behaviour (Mastrofski, Ritti, & Hoffmaster, 1987). Loose coupling looks for differences between publicly stated goals and actual officer behaviour. My survey examined the relationship between general area goals and acceptable frontline officer behaviour. Had I tested for the relationship between specific ILP-related goals and frontline behaviour, my survey might have detected a closer linkage between ILP-related goals and accepted frontline behaviour across my research sites. Differences may have emerged with officers at strong uptake sites reporting less loose coupling between ILP goals and acceptable frontline behaviour than officers at weak uptake sites.

Likewise, the factor boundaries failed to adequately tap the dimensions of boundary openness revealed by my interviews with key respondents. It may be that officers were not aware of boundary issues because these issues did not influence their day-to-day work. However, had I asked questions that tapped more closely how partners participated within the boundaries of the local organisation my survey might have drawn out differences between strong and weak uptake sites. The factor boundaries, as developed for the officer survey, focused too closely on who should be included within police organisational boundaries, rather than assessing the dynamics of interactive relationships with key partners and the extent to which partners penetrated organisational boundaries.

Several items used as part of the officer survey struggled to measure the targeted constructs effectively. As discussed in Chapter 4, two organisational-level variables failed to meet the desired Cronbach Alpha of .6 as suggested by Atiken (2000): Formalisation at .52 and Organisational Culture at .56. These
factors were adapted from measures used overseas. It may be that idiosyncratic features of the New Zealand environment undermined their reliability. The NZP culture, for example, may highlight or emphasise different aspects of the police culture than are highlighted in the United States. Five environmental-level factors also did not meet this target: Media Coverage at -.23, Police Unions at .47, Environmental Complexity at .43, Environmental Stability at .47 and Neighbourhood factors at .54. I largely constructed these factors for the purposes this research. These factors are difficult to operationalise for the purposes of survey research. Officers’ views of the environment may also vary, depending on experience. In both cases, the weakness in the survey measures was compensated for by the use of qualitative interviews to provide another perspective on the underlying construct.

8.4.2 Limitation – sampling

The sampling of interview participants could have been improved. Interviewing fewer community partners and sampling more mid-level police managers may have delivered more qualitative data focusing on the dynamics of internal police innovation processes. It became apparent that some community partners could make only general comments about the state of the partner’s relationship with local police. Many did not have specific knowledge of ILP. Community partners with ILP knowledge tended to be community workers who worked closely with police on specific programmes and projects. I might have obtained more useful information by interviewing more widely within local police areas.
8.5 Concluding comments

My research results reflect the innovation experiences of the NZP. Accordingly, my findings have implications for Western police agencies similar to the NZP. Based on my research police innovation will be associated with the following features. Innovation will be driven by transformational leaders, motivated by superordinate goals, buttressed by leadership in depth within the organisation. Managers will lead and promote informal participative management, supported by transactional leadership when necessary. Sound change management will be a feature, along with an innovation-friendly local organisational environment. Technical excellence in the development and operation of the innovation will be evident. Managers will construct the architecture of innovation. The impact of these efforts and wider organisational factors will be strongly seen at the individual level. Officers will report high levels of knowledge about and commitment to the innovation, a willingness to commit discretionary time to the innovation and high levels of innovation-related behaviour.

In 1999, Moore and colleagues examined the uptake of COP and POP innovation in the United States. While many aspects of their research were different from my own, important themes emerged that are reflected in my research. A critical common thread was the need for police organisations to re-imagine what was important and what constituted excellent performance (Moore et al., 1999, p. 89):

[To reconsider] a department’s perceptions about itself and the world in which it is operating, about what are important and meaningful tasks, and about what constitutes excellent performance.
A willingness to reconsider how policing might be more effective was a hallmark of operational police research sites evaluated as part of this study. Strong uptake sites demonstrated a willingness to experiment and be guided by the effectiveness of strategies and tactics. Important tasks were defined as those that contributed to reducing crime. Performance was judged against crime reduction criteria. Strong uptake sites reconceived their role and considered themselves to be community leaders in crime reduction and community safety.

My study has theoretical, policy and practical implications. At the theoretical level, my results predict likely patterns of innovation in police agencies across a range of factors and theoretical frames. The importance of individual leaders and the prominence of organisational factors in shaping the innovation life cycle are demonstrated. My research findings provide a pathway for policy-makers and managers who wish to foster strategic and continuous police innovation. Despite unique features of the New Zealand environment, the police innovation process within other police agencies will be assisted by applying lessons from my study. These results should both encourage and support the uptake of innovation by police internationally. In particular, these findings might mean that ILP innovation will avoid “falling by the wayside” (Ratcliffe, 2008, p. 213) as many other police reforms have. As policing moves into the 21st century, more scientific and enlightened approaches must surely find their way into the profoundly conservative institutions of policing. I remain optimistic that this study will assist that process.
Many aspects of police innovation require further scrutiny; in particular, the forces that constrain and then permit rapid police innovation. The National Research Council (2004, p. 98) describes the conundrum of police innovation:

It is surprising, then, to see how much consistency exists in the field of policing, how stable those patterns have been over time, and how, when strategies, programs, or administrative systems change in these organizations, they seem to change very quickly and all at once. Apparently, there are some forces acting on thousands of local police departments that push them toward conformity with some kind of professional norm. Furthermore, these pressures produce a high degree of inertia most of the time. But finally, when these norms change, they seem to change widely and fairly quickly – say within a decade.

This account of police innovation asks what forces act on police and demand such strong conformity within and between police agencies. This conformity is widespread and crosses international borders. Even New Zealand, which is more than 12,000 km from the United States and more than 18,000 km from the United Kingdom, is joined to this international conformity in policing. The NZP has responded in some manner to the various waves of reform that have emerged over the past three decades (Duncan, Mouly, & Nilakant, 2001; McGill, 1992; Office of the Auditor-General, 2006; Ratcliffe, 2005; Small, 2000; Winfree & Taylor, 2004). Altshuler (1997, p.39) provides one of the clearest explanations for the conformity in policing, interspersed with sudden change:

In the public sector, innovation has never achieved comparable status as a criterion of organizational excellence. Three reasons stand out. First, while government agencies face urgent problems, passionate claimants, and muckraking journalists, they experience little direct competition. Second, the political arena is characterised by high conflict; no analog of profitability exists as a consequential criterion for appraising public sector innovations. Third, people in government fear nothing more than newsworthy failure. Old programs are commonly much less effective or efficient than they might be, but their familiarity insulates them from much media attention. And even when they do attract attention, responsible officials can plausibly defend themselves by noting that they have simply been following standard practice. However, when new initiatives fail – and inevitably a large
proportion do – they become highly newsworthy, with a focus on who is to blame. In such cases the “standard practice” defense is unavailable.

Altshuler (1997) suggests that police are in effect wedded to the past. Police reply on the ‘standard practice’ defence. All three reasons Altshuler (1997) proposes drive conservatism in police decision making. In the absence of competition and fearful of failure even ineffective practices are preferable to public failure. However, when the scales tip and international standard practice moves, as it did when the presentation of COP programmes by police agencies became normalised, all agencies needed to move if they wanted to avail themselves of the standard practice explanation.

Police agencies cannot afford to be out of step with their own colleagues. The challenge for early movers is that early visible innovation will attract critics and needs to survive political scrutiny and leadership transition (Skogan, 2008) in the absence of the standard practice defence (Altshuler, 1997, p. 39). These factors create enormous pressure on police to conform. For police, being visibly out of step with the current policing norms is highly problematic.

ILP is evidence based and can successfully reduce and disrupt crime at tactical and strategic levels (Ratcliffe, 2008). Stripped down to its fundamentals, ILP is about applying scientific principles to the problems of policing. As policing moves into the 21st century, finding ways to bring scientific scrutiny to bear on the problems of policing is the challenge for police managers, academics and policy-makers. In this respect, ILP is a versatile evidence-focused model that is worthy of close examination as it develops. Whether ILP can survive the politics of policing and reach the required threshold to become standard practice will be an interesting area of academic
Chapter 8: Discussion and Conclusion

investigation over the next decade. Studying the ILP innovation process will greatly inform the study of police innovation. The extent to which ILP is fully adopted will be of enormous interest to police researchers, policy-makers and progressive police managers.

This study demonstrates that strong police innovation is both possible and achievable. Police innovation can be strategic and continuous. Innovation does not have to be half-hearted, superficial or ineffective. If police agencies are willing to reconsider their role and re-imagine what might be achieved in their communities, innovation will come to the fore naturally. Resistance and conservatism do not have to be the natural posture of police organisations. Police do not have to persist with ineffective practices, relying on precedent to defend the indefensible. In the 21st century a suite of effective evidence-led approaches are available that hold out the promise of more professional, efficient and innovative policing.
Appendix A: Ratcliffe’s 2008 Yardsticks for an Intelligence-Led Policing Environment

<table>
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<tr>
<th>Table A1: Ratcliffe’s (2008) yardsticks for an intelligence-led policing environment</th>
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<tbody>
<tr>
<td>1 Supportive and informed command structure.</td>
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<tr>
<td>Enthusiastic leadership endorses and promotes intelligence-led policing (ILP)</td>
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<tr>
<td>and using it as the basis for decision making</td>
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<tr>
<td>2 ILP is at the heart of an organisation wide approach.</td>
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<tr>
<td>Analysis needs to complement and support the whole organisation</td>
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<tr>
<td>3 Crime and criminal analysis is integrated.</td>
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<tr>
<td>Analysts work at the hub of the operational policing activities in direct support of decision makers at all levels</td>
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<tr>
<td>4 The focus is on prolific and serious offenders</td>
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<tr>
<td>5 Analytical and executive training is available.</td>
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<tr>
<td>Support for strategic and tactical decision making is available with appropriate training and resourcing. Executive education of the leadership role is available</td>
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<tr>
<td>6 Both strategic and tactical tasking meetings take place</td>
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<tr>
<td>7 Much routine investigation is screened out</td>
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<tr>
<td>8 Data are sufficiently complete, reliable and available to support quality products and influence decision makers.</td>
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<tr>
<td>9 Management structures exist to action intelligence products</td>
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<tr>
<td>10 There is appropriate use of prevention, disruption and enforcement</td>
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Appendix B: Site Selection Methodology

Introduction

This appendix describes the methodology used to select operational police areas for my research project. Site selection was an important step in structuring my research project. Finding examples of police areas that were divergent in intelligence-led policing (ILP) innovation uptake, but closely matched on key factors, critically reduced the possible influence of extraneous variables. Matching sites allowed the effects and interactions of ILP innovation uptake to be explored without potential extraneous variables colouring my research. Selected sites needed to be robust examples of strong and weak innovation uptake and match as far as possible on key organisational, environmental and individual factors.

New Zealand provides an ideal environment to conduct research into police experience of innovation. The New Zealand Police (NZP) is New Zealand's national and only police agency. The NZP provides policing services across diverse communities from highly urbanised to remote rural locations. A high level of standardisation exists within the NZP across many important organisational, environmental and individual features. All officers are recruited and trained (initial and ongoing training) to national standards. Key organisational dimensions such as national policy, dispatch protocols, general instructions, complaint procedures, promotional and transfer requirements, and structural arrangements are shared. New Zealand police officers are part of the same police union (Berry, O'Connor, Punch, & Wilson, 2008). All officers share the same organisational history and key organisational features such as structure and functional differentiation. Background environmental, economic
and social factors are likewise shared. Previous studies of policing in New Zealand have taken advantage of national standards in policy and practice, which provide a high level of consistency in background features while allowing for variability in specific locations (Ratcliffe, 2005; Winfree and Taylor, 2004).

However, within the NZP significant opportunities remain for differentiation of policing style and approach. The NZP operates a distributed governance model (New Zealand Police, 2002; Office the Auditor-General New Zealand, 2006), which encourages police managers to develop local initiatives to meet the needs of local communities. This approach has seen ILP emerge in New Zealand with limited support or direction from the central police authorities (New Zealand Police, 2006; Office the Auditor-General New Zealand, 2006). This development presents an important opportunity to explore the uptake of ILP as a policing innovation.

Identifying and matching sites in this context presented important research challenges. Using a robust and empirically sound methodology would ensure that the twin goals of identifying strong examples of strong and weak ILP innovation uptake and successfully matching sites were achieved. The site selection process involved a sub-study that adapted an existing methodology to the site selection problem.

**Methodology**

The methodology used to select sites for detailed study draws on Moore, Spelman and Young’s (1992) approach. Both this research and the work of Moore, Spelman and Young (1992) are concerned with identifying examples of innovations in policing. In their 1992 paper, Moore, Spelman and Young evaluated the utility of several approaches to identifying examples of
Moore, Spelman and Young (1992) concluded that the best approach to identifying important innovations was a combination of methods rather than relying on one exclusively. In particular, they concluded that “identifying and surveying those judged to be expert was a good idea”, particularly when combined with content analysis of a widely read professional journal (Moore, Spelman and Young, 1992, p. 90). The least successful methodology was a survey of practitioners in the field. Moore, Spelman and Young (1992) observed that it was conceptually difficult to reconcile the wide variety of perspectives held by practitioners about successful police innovation.

I used a modified approach, taking the key features from Moore, Spelman and Young (1992) and applying these to the problem of identifying examples of successful and unsuccessful ILP innovation within the NZP. The methodologies Moore, Spelman and Young (1992) evaluated were readily transferable from use in identifying innovations in policing to selecting innovative sites within a police organisation. Further, using three triangulated approaches helped to offset any biases within the individual selection approaches.

In a study of selected police transformations to community-oriented policing Moore et al. (1999) note that the first step in assessing innovation is defining the evaluative variable to be used to assess the degree of change. For Moore et al. (1999) the variable was a working definition of community-oriented policing, for
the current study a working definition of ILP is required. Moore et al. (1999, p. 19) note that:

much of the controversy over measuring the extent of change disappears once one begins to look at concrete cases … with enough cases, it becomes fairly easy to operationalise concepts of community policing; and further, to see how far different departments have moved.

The same logic applies to my study of ILP innovation. By examining the development of ILP across NZP areas, the extent of change should become clear. It should become evident at which locations ILP is working and at what locations it is not working.

**Definition of intelligence-led policing**

Ratcliffe (2003) sets out a clear definition of ILP and how it should work. Ratcliffe (2003, p. 3) identifies the key features of ILP as “the use of criminal intelligence analysis as an objective decision-making tool, focused on crime reduction and prevention through making effective use of policing strategies and external partnership projects”. Ratcliffe (2003) assigns clear roles to the main participants in ILP. Analysts and intelligence groups are responsible for interpreting the criminal environment and influencing decision-makers. Decision makers are responsible for using effective strategies and partnerships to influence the criminal environment.

Drawing on the work of Ratcliffe (2002, 2003, 2005) and Cope (2004), I developed an ideal type model of ILP innovation in NZP areas. At its best, ILP should display many of the following characteristics. The presence of clearly defined intelligence structures, including a clear definition of key roles for the Intelligence Unit and decision-maker; in particular, the relationship between the Intelligence Unit and key decision-maker should be healthy and transparent. A
supportive and informed command structure should be in place. There should be evidence of sound intelligence processes, including the collection and collation of data, in particular, consideration should be given to quality of the sources used and systematic nature of the processes used. ILP should be at the heart of an organisation-wide approach. A mature intelligence approach should demonstrate networks inside and outside the organisation and there should be evidence of a well-developed problem-solving process with short-, medium- and long-term focuses. The local Intelligence Unit should be producing clearly defined evidence-based products with unambiguous recommendations for decision-makers. A broad variety of tactics should be used, including prevention, disruption and enforcement. In addition, products should provide some coverage of trends and patterns for ‘hot’ offenders, locations, victims and products. Decision-makers need to be fully involved in the intelligence process. This might be demonstrated by the presence of a weekly whole-of-area meeting and directed daily briefings. Sound basic processes and procedures necessary to support intelligence will be in place, such as good file management and good use of available information technology tools, such as crime mapping tools. There should be evidence of training and supervision for key intelligence personnel. There may be evidence of the systematic tracking of performance relevant to intelligence and decision-maker recommendations. Finally, there should be evidence of frontline staff and investigators taking actions on the direction of decision-makers and the recommendations of Intelligence units.
New Zealand Police

The NZP is New Zealand’s national and only police organisation. It is responsible for providing all public policing in the country. The NZP employs nearly 8,000 sworn officers and over 2,000 civilian staff (New Zealand Police, 2008). I describe the NZP in detail in Chapter 4. The NZP is organised into 12 districts, each headed by a district commander. A district is organised into three to six areas, each headed by an area commander. There are 43 NZP areas.

The NZP has a decentralised organisational structure. A robust national organisational framework is maintained with consistent rank structures, training arrangements, human resources, financial management and technology infrastructure, and overall strategy and policy arrangements. NZP national headquarters controls prosecution and communications functions. However, beyond this framework, the NZP uses a distributed governance model with considerable scope for area and district commanders to innovate, or not, as they see fit. Local policing styles and approaches are varied. Since the late 1990s there has been considerable experimentation with ILP models. More recently, NZP national headquarters has encouraged areas and districts to use ILP (New Zealand Police, 2006, 2008; Office the Auditor-General New Zealand, 2006).

Overview of site selection methodology

Using Moore, Spelman and Young (1992) as a template, I selected examples of strong and weak ILP innovation sites in the following way. Initially, I used three independent techniques to select sites. The final stage of the selection process involved combining the results of each approach.
Appendix B: Site Selection Methodology

While no practitioner’s journals were available for content analysis, the reports of the NZP’s Organisational Performance Group were available for review. These reports enabled me to consider the state of ILP innovation in NZP areas as assessed for performance review purposes by the NZP. The reports describe a range of performance data for each NZP district and area. During December 2005, reports for the 2002/03 and 2004/05 financial years\(^2\) were content analysed for discourse that described the state of ILP innovation within NZP districts and areas. I compiled and assessed identified content, building up a profile of the state of ILP innovation within each district and area.

The second selection approach involved the use of reflexivity exercises. At the time of the site selection process, I was a strategic adviser within the NZP. I was also a police inspector with 24 years’ experience in the NZP at the time of the selection process. To explicitly access my own knowledge and provide a further approach to area selection, I undertook two reflexivity exercises.

Reflexivity involves recording existing knowledge and identifying taken for granted assumptions and potential conflicts as part of a data collection process (Robson, 2002). The process of reflexivity in this case guards against selecting research sites purely on the basis of the prejudices of the researcher (Robson, 2002). In September 2005 before commencing the detailed site selection process and in December 2005 as the final stage of the collection process, I undertook reflexivity exercises. This dual process enabled me to compare my own knowledge before site selection and at the conclusion of the process and allowed me to identify and assess any gaps, taken for granted assumptions and

\(^2\) Financial years run from 1 July to 30 June.
potential conflicts of interest (Robson, 2002), as well as to gain another source of information on possible sites.

The third stage of the selection process involved consulting a panel of experts. These experts all had substantial professional knowledge of NZP districts and areas. All the experts were involved in working closely with areas and all had specialist knowledge of ILP. During December 2005 I interviewed five experts. Notes were taken during the interviews, which were typed and recorded for assessment as part of the selection process. The interviews were later reviewed and content analysed. Common themes across all of the methodologies were identified. Sites recommended by the experts were identified.

**Analysis of performance reports**

Between 28 November and 11 December 2005, I reviewed 24 performance reports, one report for each of the 12 NZP districts for the 2003/04 and 2004/05 financial years. I assessed each report for specific commentary relating to ILP activity in the district and in each police area making up the districts. I copied identified commentary into a spreadsheet, so comments relating to specific areas could be easily identified and reviewed. In total, 142 sections of commentary relating to ILP were identified from the reports (63 for 2003/04 and 79 for 2004/05).

Key words searched for in the text included intelligence-led policing, crime and crash reduction (a descriptive term used within the NZP to describe ILP), tactical tasking meetings, analysis, Intelligence units and intelligence product. Clear evidence pointing to well implemented and functioning ILP, as well as
poor implementation and low level functioning were seen. Examples of commentary indicating poor execution or implementation of ILP included:

... the review team found varying levels of understanding and support demonstrated by supervisors towards crime and crash reduction and the role of intelligence led policing and there is an opportunity to improve supervisors’ understanding, tasking and deployment of intelligence product

... the area is at the early stages of development and use of the intelligence-led policing approach

... intelligence units have been established in each area however it will take some time before they are operating at the level needed to support the area crime and crash reduction approach ... the evaluation team noted a range of capability levels at area intelligence level.

Examples of positive innovative commentary included:

... there is a dedicated burglary analyst who provides trend analysis, identifies hot locations and offenders and undertakes some predictive analysis

... the commitment to intelligence-led policing was evident with the Area Commander and the management team showing a clear demand for a quality intelligence product ... a proactive approach to policing was actively encouraged and monitored throughout ... a crime and crash reduction focus was evident with combined taskings given to target both types of offending

... daily tactical meetings are used to examine offending on a daily basis and include daily responses ... the Area Commander holds a weekly meeting with all of the work unit supervisors and this meeting includes a briefing by Intel that is focused on the occurrences of the preceding seven days.

Key themes concerning ILP within areas and districts that emerged from the review suggested a lack of support for ILP or resistance to ILP from officers, a lack of understanding about ILP, explanations or excuses for a failure to deliver ILP (for example, staffing difficulties as an explanation for weak performance), evidence of relying on traditional responses to crime problems as an alternative to ILP responses (such as reactive crack downs, the formation of dedicated squads or reliance on traditional investigative responses as opposed to analysis
and intelligence processes), efforts by the district or area to improve ILP processes, products or understanding, improvements in reported performance attributed to ILP, use of intelligence product and the quality of intelligence product, descriptions of staffing arrangements within Intelligence units, relative commitment to ILP. Other themes included recommendations to improve the configuration of Intelligence units or relationships between Intelligence units.

It emerged from the analysis that many district commanders and district management teams were making efforts to introduce ILP within local areas. The analysis also revealed that these districts were having mixed success with these efforts. This finding bolstered the logic of my research project and confirmed the diversity of innovation uptake in New Zealand. An opportunity was identified to match areas from within districts that were actively making efforts to support ILP development. This would mean ensuring all selecting areas came from districts that were actively fostering ILP. This would help reduce the impact of barriers or factors relating to a lack of district support for ILP from the study. It was decided to pursue this approach.

The outcome of the content analysis identified eight areas as examples of areas strongly implementing ILP and seven areas as examples of areas poorly implementing ILP.

The review was worthwhile. As the number of identified sections of commentary indicates (142) a very significant quantum of valid and useful information was obtained. An almost complete picture of ILP emerged of deployment of ILP within the NZP. There were some inconsistencies in the depth of examination across areas and some smaller rural areas were not
assessed. However, the exercise was useful in identifying possible areas for further investigation.

Table B1 presents the results of the content analysis of performance documents, identifying possible strong and weak ILP innovative sites. Number pseudonyms have been used to identify the areas. These pseudonyms have been used consistently throughout this appendix to allow for accurate comparison between the different selection approaches. Twenty-three areas were selected by the three methodologies used. A clear preference for a small core of innovative and non-innovative areas emerged through the overall process.

<table>
<thead>
<tr>
<th>Possible strong innovative intelligence-led policing areas</th>
<th>Possible weak intelligence-led policing innovative areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1 Provincial North Island</td>
<td>Site 9 Provincial North Island</td>
</tr>
<tr>
<td>Site 2 Provincial North Island</td>
<td>Site 10 Provincial North Island</td>
</tr>
<tr>
<td>Site 3 Rural North Island</td>
<td>Site 11 Metropolitan North Island</td>
</tr>
<tr>
<td>Site 4 Provincial North Island</td>
<td>Site 12 Provincial North Island</td>
</tr>
<tr>
<td>Site 5 Provincial North Island</td>
<td>Site 13 Provincial North Island</td>
</tr>
<tr>
<td>Site 6 Metropolitan North Island</td>
<td>Site 14 Metropolitan North Island</td>
</tr>
<tr>
<td>Site 7 Metropolitan North Island</td>
<td>Site 15 Provincial North Island</td>
</tr>
<tr>
<td>Site 8 Metropolitan South Island</td>
<td></td>
</tr>
</tbody>
</table>

Panel of experts

The next stage of the site selection process was to consult a panel of experts. It was not difficult to identify potential experts within the NZP who had both expert knowledge of ILP and knowledge of the development of ILP with NZP areas. Consideration was given to a range of potential experts who were based at NZP national headquarters who had acquired a high level of ILP knowledge and worked closely with NZP areas. Five experts were selected
Intelligence-Led Policing in New Zealand

who I considered had both the most knowledge of ILP and a wide knowledge of NZP areas. I based this judgment on the objective work experience of the experts as known to me. the NZP employed all of the experts as specialist advisers. All had expertise in ILP and all were widely travelled within NZP areas. None of the experts were working in the Organisational Performance Group responsible for preparing organisational performance reports.

Where possible, expert interviews were conducted in public settings, three of the five were conducted in cafés and two in police offices because of time constraints. I felt that non-police settings were more desirable as they might allow the experts to relax and speak more freely than they would in police spaces (Robson, 2002).

I conducted five separate interviews with the selected experts on 22 November, 29 November, 8 December, 12 December, and 13 December 2005. I took notes during each interview and recorded these notes in a report completed contemporaneously with the interview. At the end of the recording process, I identified the sites the experts had identified and set them out in a matrix.

At the start of each interview, I set out the aims of the research and clarified details of the study and the information I was seeking. I explained the focus on Ratcliffe’s (2003) 3I model and how my study was investigating the uptake of ILP as a policing innovation. The interviews were conducted on a confidential basis. Limited identifying information was requested or collected from the experts. The interviews focused on moving systematically through NZP areas and districts and exploring the quality of ILP development and related issues. The interviews lasted 30–40 minutes.
All of the experts made efforts to qualify their commentary. Four of the five experts felt qualified to comment on a significant number of NZP districts and areas but felt their knowledge was variable and they volunteered limits on their expertise. This constraint was far from limiting and the overall picture obtained was very useful. The experts tended to have excellent knowledge of 50–70% of NZP areas and limited knowledge on the remainder. However, the overall view obtained was comprehensive and gave me a complete insight into NZP areas.

A wide range of themes emerged from the interviews. These themes included examples of presentational behaviour, commitment to the standard model of policing (Weisburd and Eck, 2004) rather than observed support for ILP, efforts to embed ILP, examples of leadership support for ILP, dysfunctional behaviours and cultures, the status of internal and external relationships, struggles translating ILP into the rural communities, the quality of decision making, the lack of impact on the criminal environment, the use of a tactical coordinator, the maturity of ILP products being produced, the quality of key personnel, levels of enthusiasm for ILP, the presence of resistance to change, the quality of decision making, leadership styles and the quality of road policing intelligence. This process identified seven strong innovative areas and nine weak innovative areas. The areas identified from the analysis of performance reports overlapped significantly. Table B2 overviews the police areas identified through the process of interviewing experts.
Table B2: Analysis of expert interviews

<table>
<thead>
<tr>
<th>Possible strong innovative intelligence-led policing areas</th>
<th>Possible weak intelligence-led innovative areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1 Provincial North Island</td>
<td>Site 9 Provincial North Island</td>
</tr>
<tr>
<td>Site 2 Provincial North Island</td>
<td>Site 10 Provincial North Island</td>
</tr>
<tr>
<td>Site 3 Rural North Island</td>
<td>Site 12 Provincial North Island</td>
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<tr>
<td>Site 4 Provincial North Island</td>
<td>Site 13 Provincial North Island</td>
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<tr>
<td>Site 5 Provincial North Island</td>
<td>Site 14 Metropolitan North Island</td>
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<tr>
<td>Site 6 Metropolitan North Island</td>
<td>Site 15 Provincial North Island</td>
</tr>
<tr>
<td>Site 7 Metropolitan North Island</td>
<td>Site 16 Metropolitan South Island</td>
</tr>
<tr>
<td></td>
<td>Site 17 Rural South Island</td>
</tr>
<tr>
<td></td>
<td>Site 18 Provincial North Island</td>
</tr>
</tbody>
</table>

Seven of the eight strong innovation areas identified by the review of performance reports were identified by the expert interviews. Only one strong innovation area suggested by the performance reports was not also suggested by the panel of experts. In relation to weak innovation sites six of the same sites were identified by the expert interviews. Site 11 was not identified by the experts and three additional weak innovative sites were identified by the experts and not by the performance reports (sites 16, 17 and 18). The differences between performance review findings and the interviews with experts represent a sound triangulation of approaches. There were consistencies in selection approaches as well as differences. The differences indicated to me that the interviews with experts were tapping more of an insider’s view of police area operations. The experts appeared to be privy to the day-to-day realities of policing in a way that more formal performance reviews were not.
Reflexivity exercise 1

When I undertook the site selection process, I was a strategic adviser within the NZP with my own knowledge of the state of ILP within NZP areas and districts. To explicitly access my own knowledge and provide another approach to area selection before making a final reconciliation and selection of sites, I undertook two reflexivity exercises.

I undertook the two reflexivity exercises on 18 September 2005 before the collection of detailed site selection information began and on 18 December 2005 as the final stage of the selection process. This dual process enabled me to compare my own knowledge before commencing the site selection process with that at the conclusion of the process.

I completed two reports detailing my knowledge of ILP innovation and performance within each area and district. The first report (completed 18 September 2005) was 1,593 words in length and detailed my knowledge of the current state of ILP innovation in each district and area within the NZP. The report concluded by identifying six strong innovation ILP areas and 11 weak innovative areas. Of the six strong innovative areas I selected, I had identified only one of the final two selected when I conducted the first reflexivity report. Of the 11 non-innovative areas, only one of the final two selected had been known to me when I conducted the first reflexivity report.

Themes identified during the first reflexivity exercise included general reputation, in particular the conservative nature of some areas and districts, innovative ILP change being deployed, the history of ILP and general innovation, cultural issues including Criminal Investigation Branch culture, efforts being made to support ILP, the impact of the local environment on
policing, commitment to the standard model of policing (Weisburd and Eck, 2004) and a focus on gangs and drugs.

I did not demonstrate any significant biases independently from or by way of comparison with the other sources used for site selection. As with the experts there were some elements of incomplete knowledge due to uneven experience working with NZP police areas and this led to an inevitable kind of bias in the direction of known areas over unknown.

**Table B3: Results of reflexivity exercise 1**

<table>
<thead>
<tr>
<th>Possible strong innovative intelligence-led policing areas</th>
<th>Possible weak intelligence-led policing innovative areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1 Provincial North Island</td>
<td>Site 6 Metropolitan North Island</td>
</tr>
<tr>
<td>Site 5 Provincial North Island</td>
<td>Site 12 Provincial North Island</td>
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<tr>
<td>Site 7 Metropolitan North Island</td>
<td>Site 13 Provincial North Island</td>
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<tr>
<td>Site 8 Metropolitan South Island</td>
<td>Site 14 Metropolitan North Island</td>
</tr>
<tr>
<td>Site 19 Provincial North Island</td>
<td>Site 16 Metropolitan South Island</td>
</tr>
<tr>
<td>Site 20 Metropolitan South Island</td>
<td>Site 18 Provincial North Island</td>
</tr>
<tr>
<td>Site 21 Metropolitan North Island</td>
<td>Site 19 Metropolitan North Island</td>
</tr>
<tr>
<td>Site 22 Metropolitan North Island</td>
<td>Site 20 Metropolitan North Island</td>
</tr>
<tr>
<td>Site 23 Metropolitan North Island</td>
<td>Site 21 Metropolitan North Island</td>
</tr>
</tbody>
</table>

Of the six innovative sites I identified in the reflexivity exercise 1, three were identified by both other site selection processes (sites 1, 5 and 7) and one (site 8) by the review of performance documents only. Sites 19 and 20 were not selected by either of the other processes. Of the non-innovation sites one (site 6) was selected as strongly innovative by both the other processes, but as non-innovative by reflexivity exercise 1. Sites 12, 13 and 14 were selected by all three processes, and sites 16 and 18 were also selected by the expert
interview process. Sites 19 to 23 were not identified by any other process, so were discarded.

The main issues I thought were important can be separated by the two reflexivity exercises. Reflexivity exercise 1 drew totally from my own knowledge alone. Reflexivity exercise 2 drew on all of the available site selection sources as well as considerations about finding matching sites. For the first exercise, the main issues I thought were important included the general approach to ILP, whether the areas and districts were strongly innovative or weakly innovative or were making what appeared to be a genuine effort to implement ILP. I also considered history and reputation to be important, so these factors were clearly an influence on my initial site selection. My interest in reputation was balanced by the other approaches to site selection. Reputation was not a focus of performance reviews, which were focused on the here and now, and also for the panel of experts, which focused on recent interactions with the areas.

**Reflexivity exercise 2**

The final stage of the selection process, completed at the conclusion of all other steps was the second and final reflexivity exercise. During this exercise I attempted to balance all of the sources of information against the need to find matching sites and reach a conclusion that was consistent with the evidence and both practical and logical. For this concluding exercise, I minimised my own views, acting to consolidate the views of the experts and performance data, using my judgment only when the experts and performance data were difficult to merge. Consolidation was a relatively straightforward process given the general level of agreement from the two external sources. In the end the experts and performance data coupled with reflexivity exercise 1 pointed to two
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clusters of areas that presented several options. There was a significant overlap in the possible areas the different approaches threw up. This left me with a level of comfort about the validity of the approach used. Reflexivity exercise 2 assessed the options through a practical lens, considering both the comparative features of the areas and how the research might actually be conducted.

The final report I completed was the last step in the selection process. It drew together all the information I had gleaned from the various sources. This brief report of 642 words sharpened the information obtained, weighting all the themes and issues that emerged from the earlier reviews and analysis. In particular, I considered how the various site options might match. This involved considering demographic and staffing data. This data was sourced from public data available on the Statistics New Zealand website and from data available from the NZP. The approach of the study has been to match sites in the first instance so that there are as few differences between the sites as possible. This minimises the influence of extraneous environmental variables. The intention was not to find perfect matches but to match sites as far as possible, balancing the need to find exemplar innovative and non-innovative sites and to limit differences. It is worth noting again that the NZP is a national police organisation with standardised recruiting, training, policy and oversight.

Overall, the complete site selection process generated eight strong innovation ILP sites and 10 possible weak innovative sites (once the five areas that only I had nominated during reflexivity exercise 1 were discarded). From these possible sites, two strong innovation sites and two weak innovation sites

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83 The Statistics New Zealand website is http://www.stats.govt.nz.
were selected based on the criteria that they were (a) the best examples available and (b) matched on known variables such as size, location, general environment, population and policing issues.

Table B4 identifies the four selected sites. The selected sites are typical provincial NZP areas. They are centred around provincial cities with wider rural communities to service and are characteristic of police areas in New Zealand, operating outside the main population centres of Auckland, Wellington and Christchurch.

**Table B4: Reflexivity exercise 2 – selected New Zealand innovative and non-innovative police areas**

<table>
<thead>
<tr>
<th>Selected strong innovation intelligence-led policing areas</th>
<th>Selected weak innovation intelligence-led policing areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1 Provincial North Island – pseudonym Mātātā</td>
<td>Site 10 Provincial North Island – pseudonym Kea</td>
</tr>
<tr>
<td>Site 2 Provincial North Island – pseudonym Takahē</td>
<td>Site 12 Provincial North Island – pseudonym Hihi</td>
</tr>
</tbody>
</table>

Of the sites finally selected, only one strong innovation site and one weak innovation site were identified during the first reflexivity exercise. This demonstrates the robustness of the process. The use of a triangulated approach confirmed some of my initial views but demonstrated others to be weak. A very strong level of agreement existed between the expert interviews and the review of performance data. These approaches supported in a small way, but mainly corrected, my initial views.
### Table B5: Comparative site data – police staffing

<table>
<thead>
<tr>
<th>Site</th>
<th>Sworn staff constables and sergeants</th>
<th>Management staff sworn</th>
<th>Average length of service of all sworn staff</th>
<th>Non-sworn staff</th>
<th>Average length of service of all non-sworn staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mātātā Innovative site</td>
<td>90 (64 male; 12 female)</td>
<td>1 inspector; 4 senior sergeants (no female)</td>
<td>8.5 years (8.8 years male; 6.9 years female)</td>
<td>20 (3 male; 17 female)</td>
<td>8 years (8.7 years male, 7.9 years female)</td>
</tr>
<tr>
<td>Takahē Innovative site</td>
<td>83 (72 male; 11 female)</td>
<td>1 inspector; 2 senior sergeants (no female)</td>
<td>8.9 years (8.9 years male; 5.5 years female)</td>
<td>14 (2 male; 12 female)</td>
<td>8.1 years (7.1 years male, 8.2 years female)</td>
</tr>
<tr>
<td>Hihi Non-innovative site</td>
<td>95 (85 male; 10 female)</td>
<td>2 inspector; 4 senior sergeants (no female)</td>
<td>14.7 years (15.6 years male; 8.4 years female)</td>
<td>25 (4 male; 21 female)</td>
<td>11.5 years (6.8 years male, 12.3 years female)</td>
</tr>
<tr>
<td>Kea Non-innovative site</td>
<td>133 (110 male; 23 female)</td>
<td>2 inspector; 6 senior sergeants (no female)</td>
<td>10.9 years (11.8 years male; 6.5 years female)</td>
<td>41 (10 male; 31 female)</td>
<td>9.8 years (10.5 years male, 9.5 years female)</td>
</tr>
</tbody>
</table>

### Table B6: Comparative site data – population and economic

<table>
<thead>
<tr>
<th>Site</th>
<th>Total population</th>
<th>Population Ages 10–25 years</th>
<th>Percentage urban and rural of total area per sq km</th>
<th>Population diversity</th>
<th>Average household income*</th>
<th>Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mātātā</td>
<td>54,162</td>
<td>11,100 (20.5%)</td>
<td>Urban 3%; Rural 97% – Total Area 4,653.5 sq km</td>
<td>Caucasian 43,662 (77%) Māori 11,016 (20.3%)</td>
<td>$14,800 (% earning $25,000 or less 40.9%)</td>
<td>2,370 (9.6%)</td>
</tr>
<tr>
<td>Takahē</td>
<td>43,128</td>
<td>11,334 (26.27%)</td>
<td>Urban 2%; Rural 98% – Total Area 8,613 sq km</td>
<td>Caucasian 39,111 (65.94%) Māori 15,624 (26.34%)</td>
<td>$14,862 (% earning $25,000 or less 31%)</td>
<td>2,265 (8.7%)</td>
</tr>
<tr>
<td>Hihi</td>
<td>59,211</td>
<td>10,926 (18.4%)</td>
<td>Urban 4%; Rural 96% – Total Area 3,577.5 sq km</td>
<td>Caucasian 49,278 (79.34%) Māori 10,122 (16.29%)</td>
<td>$18,735 (% earning $25,000 or less 34.12%)</td>
<td>2,217 (7.57%)</td>
</tr>
<tr>
<td>Kea</td>
<td>83,817</td>
<td>16,917 (20.18%)</td>
<td>Urban 2%; Rural 98% – Total Area 5,692.6 sq km</td>
<td>Caucasian 65,850 (75%) Māori 18,735 (21.36%)</td>
<td>$24,138 (% earning $25,000 or less 34.93%)</td>
<td>3,444 (9%)</td>
</tr>
</tbody>
</table>


As shown in Tables B5 and B6 the selection process identified sites that closely matched on important variables. Some differences existed between the sites that could not be eliminated, so the sites do not match exactly. I now discuss and explore these differences.
Size is an important factor associated with innovation uptake. Larger organisations have more slack resources, and a consistent finding from the innovation literature confirms that large organisations are more innovative than smaller organisations (Rogers, 2003). The effect of size is modest, however, with some studies reporting larger organisations having more difficulty implementing innovations than smaller organisations (see Rogers (2003) for a discussion on this point). Both non-innovative sites are slightly larger than the selected innovative sites. Innovative sites Mātātā and Takahē have officer populations of 90 and 83 constables respectively; with weak innovation uptake sites Kea and Hihi having 133 and 95. To the extent that size is a factor supporting innovation uptake, the larger size of my weak sites gives them an advantage in developing ILP. As the reported effect of size supports the development of ILP at weak innovation uptake sites, rather than innovative sites, size is unlikely to be an extraneous variable influencing the results of this study.

Table B5 reveals that the average length of service of officers at Mātātā is 8.5 years, at Takahē 8.9 years, at Kea 10.9 years and at Hihi 14.7 years. Beck (1996) and Beck and Wilson (1997) suggest that officer commitment in Australia declines rapidly with length of service. Weak officer commitment is associated with difficulties in achieving innovation uptake (Beck, 1996; Beck and Wilson, 1995, 1997, 1998a, 1998b). However, the picture is not clear in New Zealand, as New Zealand officers show higher levels of commitment than Australian officers and evidence points to improvements in officer commitment after an initial decline as officers become more personally invested in the organisation (Beck, 1996). If there is a rapid decline in officer commitment associated with length of service, non-innovative sites may be disadvantaged in achieving ILP.
innovation uptake because they have more mature officer populations. Again, the effect is not clear because non-innovative sites may have more mature office populations who are more personally invested in policing. Also, different patterns of commitment may exist in New Zealand than in Australia. Officer commitment is a factor I specifically explore in my study, so any effect of commitment can be evaluated over my research sites.

In New Zealand the indigenous Māori population creates a significant workload for police. Māori constitute 14% of New Zealand’s population but make up 51% of the prison population (Doone, 2000). Table B6 shows that the Māori population at non-innovative site Hihi makes up 16% of the total population. At non-innovative site Kea Māori make up 21%, and at innovative sites Mātātā 20% and Takahē 26%. To the extent that large Māori populations inhibit innovation uptake, non-innovative site Hihi may be advantaged my having a smaller Māori population and innovative site Takahē may be disadvantaged. However, the effect of variations in the size of the Māori population on innovation uptake is unclear. It may be that a more challenging local environment stimulates the development of innovation through a confluence of problems and solutions (National Research Council, 2004). The effects of environmental factors on innovation uptake are evaluated as part of my research project and any idiosyncratic New Zealand effects are also evaluated.

Conclusion

Overall, the differences between my research sites are not outweighed by their similarities and may advantage non-innovative sites in innovation uptake (factors such as smaller Māori population, larger organisations and more
mature officer populations). The effects of any differences are likely to be weak in either supporting or inhibiting innovation uptake.

This appendix has described the methodology used to select operational police areas for my research project. Selecting sites within a unified national police agency has controlled for a wide range of extraneous variables likely to impact on innovation uptake such as differences in training, history and organisational structure. Four sites have been selected through the site selection process. All sites are operational police areas based around provincial cities in New Zealand’s North Island. All have similar economic and operational environments. The site selection process has controlled for the influence of many potential extraneous variables and provides a strong platform of the analysis of ILP in New Zealand.
Appendix C: Police Officer Survey Instrument Design and Variable Construction

Preamble

The goal of this research is to explore the relative influences of individual, environmental and organisational factors that impact on the uptake (or lack of) of intelligence-led policing (ILP) within the New Zealand Police. ILP requires police to stand back and use analytical techniques to understand their criminal environment and use evidence to frame responses (Ratcliffe, 2003). Ratcliffe (2003) identifies the key features of ILP as the use of criminal intelligence analysis as an objective decision-making tool, focused on crime reduction and prevention through making effective use of policing strategies and external partnerships. Ratcliffe (2003) assigns clear roles to the main participants in ILP. Analysts and intelligence groups are responsible for interpreting the criminal environment and influencing decisions-makers. Decision-makers are responsible for using effective strategies and partnerships to impact on the criminal environment.

Individual-level variables

Variable – Knowledge of intelligence-led policing

A consistent theme in the literature is the need for individual staff to understand their role in new initiatives (John & Maguire, 2004; Rosenbaum, Yeh, & Wilkinson, 1994; Scott, 2003) with benefits seen when innovation knowledge is directly addressed (Riksheim & Chermak, 1993; Skogan & Hartnett, 1997). Knowledge issues are particularly important for ILP because of
the radical nature of the change (King, 2000) and the specific knowledge required by the innovation (Ratcliffe, 2004, 2005).

**Instructions:** Below are statements describing concepts relating to intelligence led policing. Please pick a number from the scale below to indicate your familiarity with the concepts described.

<table>
<thead>
<tr>
<th>Not at all familiar</th>
<th>A little or somewhat familiar</th>
<th>Familiar</th>
<th>Very familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working from an evidence base to guide practice</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>The 3I model</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Managing crime and disorder hot spots</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Influencing decision makers</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Impacting on the criminal environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Variable – Commitment to intelligence-led policing**

Officers who hold or develop commitment to specific new innovations tend to behave in ways that are consistent with that commitment (Ford, Weissbein, & Plamondon, 2003; Mastrofski, Worden, & Snipes, 1995) particularly where the desired behaviours are discretionary in some way (Riksheim & Chermak, 1993; Robinson, 2002).

Ford, Weissbein and Plamondon (2003) developed a measure to test officer commitment to community-oriented (COP) policing. Six items were used where officers indicated the extent to which they were committed to COP and the extent to which they believed that community policing could work in their department (α = .89). Using the Ford, Weissbein and Plamondon (2003) measure as a model a measure has been developed for ILP.
Appendix C: Police Officer Survey Instrument Design and Variable Construction

<table>
<thead>
<tr>
<th>a. I am committed to the idea of Intelligence-led policing</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Intelligence-led policing is just a political move by management (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. My police Area is making Intelligence-led policing effective</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Intelligence-led policing is just a distraction from real police work (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Instructions: Listed below are a number of statements specifically related to your feelings about your work. Circle the number that best corresponds to your level of agreement with each statement.

**Variable – Job satisfaction**

Job satisfaction describes the affective response that individuals have to their jobs (McCormick & Ilgen, 1987). Job satisfaction is often associated with more participative management styles (Buzawa, Austin, & Bannon, 1994). Well-executed change which offers more meaningful work can lead to greater job satisfaction (Adams, Roche, & Arcury, 2002; Wilson & Beck, 1995). If ILP is associated with a more satisfying work environment then this is likely to support ILP innovation.

This measure of job satisfaction is taken from Ford, Weissbein and Plamondon (2003). It is simple and concise, not adding to the length of the survey. It uses two items ($\alpha = .92$).
Intelligence-Led Policing in New Zealand

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

a. All things considered, I am satisfied with my job 1 2 3 4 5

**Variable – Organisational commitment**

Organisational commitment assesses individual affective attachment to the organisation they work for (Warr, 2002). Low levels of organisational commitment have been associated with resistance to organisational change (Beck & Wilson, 1995). Variance in organisational commitment particularly as it is associated with resistance to change is likely to be associated with varying levels of ILP innovation.

The measures follows Ford, Weissbein and Plamondon (2003) who used 9 items from the Organizational Commitment Questionnaire (Porter, Steers, Mowday, & Boulian, 1974) (\(\alpha = .91\)). 8 items are used, one has been dropped because of a lack of application to the New Zealand context (I am extremely glad I chose this department to work for over others I was considering at the time). The questions tap the affective component of organisational commitment rather than adopting a broader definition. Factors which might contribute to a wider definition of organisational commitment such as job satisfaction and the role of supervisors are directly addressed as part of the broader survey.
Appendix C: Police Officer Survey Instrument Design and Variable Construction

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am willing to put in a great deal of effort beyond that normally expected to help this police Area be successful</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. I am proud to tell others that I am part of this police Area</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. This police Area really inspires the best in me in the way of job performance</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. I couldn’t care less about the fate of this police Area (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Instructions: Listed below are a number of statements specifically related to police work and law enforcement. Circle the number that best corresponds to your level of agreement with each statement.

**Variable – Discretion**

Much police behaviour and police use of time is discretionary (Famega, Frank, & Mazerolle, 2005; Riksheim & Chermak, 1993; Robinson, 2002). Significant police innovations require a willingness by police to use their discretion and discretionary time in a way that supports innovation and or some managerial framework that forces compliance (Riksheim & Chermak, 1993; Robinson, 2002). DeJong, Mastrofski and Parks (2001, p. 44) define self-directed time as “time free of assignments from dispatch or supervisors”. Clearly officer willingness to use discretionary time in supporting ILP is likely to be a significant impact on the success of ILP innovation.
Using the definition offered by DeJong, Mastrofski and Parks (2001) a series of questions has been developed which ask officers to describe their willingness to use their discretionary time to support ILP.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Between jobs I try to get bail checks completed</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. When I have the time I try to complete directed patrols</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. If I have free time I’m unlikely to do anything recommended by the Intelligence unit (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. I concentrate my patrol activities in hot spots identified by the Area Intelligence unit</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Instructions: Listed below are a number of statements specifically related to your supervisor. Circle the number that best corresponds to your level of agreement with each statement.

**Variable – Influence of supervisors**

Supervisors significantly influence police officer behaviour. Specifically the beliefs staff hold of the priorities held by their supervisor are likely to significantly influence their behaviour (Becker et al., 1996; Dejong, Mastrofski, & Parks, 2001; Engel & Worden, 2003; Larkin & Larkin, 1996). If staff believe that their supervisor consider ILP as a strategy or ILP related behaviours to be important then the evidence suggests this is likely to be associated with successful ILP innovation.
Engel and Worden (2003) assessed officer attitudes and supervisory influences in relation to problem solving. One measure identified officer perceptions of their supervisor’s priorities and assessed the extent of officer problem solving activity in relation to this perception. Officers were asked to identify what they believed were the top two priorities of their supervisor from a list of seven priorities, officers who identified two of four descriptors of problem solving were identified as officers who believed their supervisors were committed to problem solving. The same approach has been used to identify whether officers believe their supervisors are committed to Intelligence-led policing. Officers are asked to choose what they believe are the top three priorities of their supervisor. If they choose any three of six descriptors of ILP priorities then they are assessed as believing that their supervisor supports ILP.

Please rate from the list below the priorities according to how important you believe they are to your immediate normal supervisor. Indicate by ranking the six priorities from what you believe to be the top priority of your supervisor as 1, through to the bottom priority as 6. Rank all priorities. Your view of your supervisor’s priorities is what it sought here.

- a. Reducing crime in identified hot spots (ILP)
- b. Keeping arrest rates up
- c. Enforcing the law
- e. Completing directed patrols in identified locations (ILP)
- f. Maintaining order, preventing disorder
- g. Completing and following up on bail checks (ILP)
Instructions: Listed below are a number of statements police activities. Circle the number that best corresponds to your level of agreement with each statement.

**Variable – ILP strategy-related behaviour**

Ford, Weissbein and Plamondon (2003) examined COP related behaviour using a seven-item scale measuring the frequency of community policing activities identified in the law enforcement literature ($\alpha = .87$). They asked the question “To what extent do you participate in the following activities” and offered seven kinds of COP activities. The same approach has been developed and applied to ILP.

**To what extent do you participate in the following activities?**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>A few times a year</th>
<th>Once a month</th>
<th>Once a week</th>
<th>Once a shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Voluntarily providing information to your local intelligence section eg notings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Checking that offenders are not breaching their bail conditions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Patrolling in specific locations at specific times suggested by your local Intelligence section</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Completing inquiries or looking in locations for specific known offenders identified by your Intelligence section</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Environmental-level variables

Instructions: Listed below are a number of statements regarding relationships between police and various agencies or community groups. Circle the number that best corresponds to your level of agreement with each statement.

Variable – Relationships

Police are constantly engaged in negotiating relationships (Reiss and Bordua, 1967). The key relationships influencing police behaviour include: media (Chan Kim & Mauborgne, 2003), political (Crank & Langworthy, 1996; Hassell, Zhao, & Maguire, 2003; Mastrofski, Ritti, & Hoffmaster, 1987) police unions (Finnane, 1999; Goldstein, 2003; Kadleck, 2003, Magenau & Hunt, 1996) and the community (Crank & Langworthy, 1992; Falcone, Wells, & Weisheit, 2002; Moore et al., 1999). These relationships represent the core of the complex web of constituencies that police must service in order to maintain legitimacy (Crank & Langworthy, 1992; Scott, 2003). How local police staff perceive the status of these relationships is likely to influence attitudes and behaviour towards innovation and the strength of any resistance to change. Ankony and Kelley (1999) and Scott (2004) demonstrated how media criticism of police increases officer stress levels and reduce the likelihood of proactive policing. Key relationships being evaluated are Media, Political, Police Unions and the Community.

Variable – Media criticism

Scott (2005) developed a scale to assess the impact of media criticism of police on officer stress levels. The following scale has been adapted from
Intelligence-Led Policing in New Zealand

Scott’s (2005) Media Criticism Scale\(^{54}\) to assess officer perceptions of the impact of media on the local policing environment.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Media coverage is disruptive to my work as a police officer</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. The image of the New Zealand Police has been enhanced by Media coverage (Reverse scored)</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>c. My career as a police officer has been affected by media coverage</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Media coverage has made me reconsider my decision to become a police officer</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Variable – Political**

Magenau and Hunt (1996) measured community relations using a 7 point scale assessing the extent to which officers believed the community supported the police and the quality of the relationship with the community. The following environmental scales have been modeled on this approach and seek officer assessments of the quality of key police relationships.

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\(^{54}\) Written permission to use the Media Criticism Scale obtained from the author Dr Yolanda Scott, 13 October 2005 (with thanks).
Appendix C: Police Officer Survey Instrument Design and Variable Construction

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The police Area I work in has a good working relationship with local government authorities</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. The local authority in the police Area I work in is supportive of the police</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Police and local government officials work closely together on community problems in the police Area I work in</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Variable – Police unions

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The Police Association in my local police Area are frequently hostile to the actions of local Police management (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Generally the local Police Association collaborates well with the local Police Area Commander</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Variable – Community relations

This community relations scale has been adapted directly from Magenau and Hunt’s (1996) community relations scale, with modifications to adapt the scale to the New Zealand context.
### Intelligence-Led Policing in New Zealand

#### Instructions:
Listed below are a number of statements regarding environmental factors and police. Circle the number that best corresponds to your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The average citizen in my community is willing to assist a police officer in solving crimes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. The public in my community has no respect for police officers (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. The police Area I work in has excellent relations with ethic groups in our community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. The majority of citizens in my community support the police</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Variable – Input demand

Police can perceive they are overworked, over stretched or over loaded (Lipsky, 1980; Sparrow, 2000; Wells, Falcone, & Rabe-Hemp, 2003). Where this view is held innovative change such as ILP may be seen as either helpful or unhelpful. ILP might be viewed as assisting to overcome crime and disorder problems or as simply another distraction. Perceived workload is likely to shape the nature of shortcuts, routines and simplifications employed by police at both the individual and organisational level (Lipsky, 1980) and significantly influence behaviour and attitude towards ILP.

Wells, Falcone and Rebe-Hemp (2003) suggest that input demand consists of the volume of demand for police responses as determined by population and the volume of crime and disorder. As perceptions of population are assessed
Appendix C: Police Officer Survey Instrument Design and Variable Construction

as part of other environmental factors input demand is defined as the perception of crime and disorder problems. Based on this definition the following items have been developed.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
a. The volume of work in my police Area means that we are always busy | 1 | 2 | 3 | 4 |
b. In general the level of crime and disorder in my police Area is low (Reverse scored) | 1 | 2 | 3 | 4 |
c. Generally we are so busy in my Area that we have to use shortcuts to get things done | 1 | 2 | 3 | 4 |

Variable – Environmental complexity

Environmental complexity describes levels of diversity in environmental factors shown to impact on police behaviour, including population heterogeneity, inequality, urbanization, social disorder and racial make up (Crank, 1990; Maguire, 2003). Wells, Falcone and Rabe-Hemp (2003) define the “social complexity of the community” as the degree to which the social events in the agency’s environment are simple, uniform and amendable to routine organisational procedures such as the social heterogeneity of the community, the structure of systematic inequality within the community, the degree of urbanization and crowding, the physical scope or geographic diversity of the community and the amount of social disorganization or enduring conflict within the community.

Greater environmental complexity may impact on Police behaviour in a number of ways. Complexity can be a stimulus for innovation (Rogers, 2003),
can precipitate withdrawal and retreat (Maguire, 2003) or lead to seemingly unpredictably behaviour by police agencies (Maguire, 2003).

Drawing on the key aspects of environmental complexity identified by Crank (1990), Maguire (2003) and Wells, Falcone and Rabe-Hemp (2003) definitions the following measure has been developed.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. There are a wide variety of ethnic groups in the population I police</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. There is are big differences between the rich and poor communities I work in day to day</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. I notice a lot of overcrowding in the communities I work in</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Many of the communities I work in seem unable to cope with their own problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Variable – Environmental stability / instability**

Environmental stability / instability describes levels of stability in resources, population, political arrangements, racial configurations and community relations (Maguire, 2003). Maguire (2003) suggests that police are motivated to try to limit the ability of unstable factors to influence behaviour and create uncertainty. The environmental instability of the community refers to the degree of turbulence, variability, disruption, and temporal unpredictability in community events or processes, what Davenport (1996) termed environmental dynamism. This factor includes such: residential turnover; shifts or fluctuations in population size or composition; institutional disruptions involving changes in major social institutions; and economic turbulence in employment or income levels.
Appendix C: Police Officer Survey Instrument Design and Variable Construction

Again perceptions of instability in the environment stimulate a variety of attitudes and behaviours likely to impact on innovation in similar ways as environmental complexity.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The communities I work in are quite stable (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Residents move in and out of the communities I work in a lot</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. The population of the communities I work is growing quickly</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Recent economic changes have impacting negatively on the police Area I work in</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Variable – Neighbourhood factors

Specific location can alter police behaviour with evidence of bias in detection activities related to neighbourhood stability and racial heterogeneity (Kania & Mackey, 1972; Klinger, 2004; Riksheim & Chermak, 1993; Smith, 1986; Worden, 1989). Locations may support inconsistency or unwillingness on the part of police to engage in ILP behaviours in some locations. Klinger (1997, 2004) suggests that community characteristics may shape officer attitudes and behaviour in line with perceived community norms.

Smith (1986) for examples demonstrated Police offer more assistance to residents and initiate more contacts with suspicious persons in racially heterogeneous neighbourhoods. They are also more likely to arrest in lower status neighbourhoods regardless of a range of other factors.
Terrill and Reisig (2003) confirmed Smith’s (1986) finding concluding that police officers act differently in different neighbourhood contexts. ILP innovation may be undermined by Police officers who are highly sensitive to the influence of neighbourhood factors, driving an unbalanced approach to ILP behaviours across the police area.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Some more affluent communities expect the Police to do a lot more for them than other communities</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. All the neighbourhoods in my Police Area are more or less the same (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Officers in this police Area will tolerate minor offending in disadvantaged neighbourhoods than better off neighbourhoods</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Family violence is accepted more in some neighbourhoods than others</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e. Worries about Officer’s personal safety in the rougher neighbourhoods of this police Area influence the way police operate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Organisational-level variables

Instructions: Listed below are a number of statements regarding organisational / management issues and police activities. Circle the number that best corresponds to your level of agreement with each statement.

Variable – Goals

Lipsky (1980), Mastrofski, Ritti and Hoffmaster (1987), and Maguire and King (2004) all identify the frequent disconnection between police goals,
outcomes and behaviour. Evidence suggests that alignment between goals and behaviour is better in smaller police agencies (Falcone, Wells, & Weisheit, 2002; Mastrofksi, Ritti, & Hoffmaster, 1987). Acceptance of organisational goals as meaningful and willingness to align behaviour with goals is likely to support innovation.

A number of researchers have assessed officer acceptance of organisational goals. Beck and Wilson (1995) asked a single item goal related question in their survey of police officers ‘I have a good understanding of what the Service Corporate goals are.’ Dick and Metcalf (2001) assessed the commitment of officer’s to the organisations goals and value systems by asking about awareness and understanding of Force goals. Drawing from these two sources the following questions have been developed.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
a. I feel that the job I do day to day contributes to achieving the goals of my police Area |
| 1               | 2     | 3        | 4                |
b. I work hard to meet the goals of my police Area |
| 1               | 2     | 3        | 4                |

**Variable – Boundaries**

Changes in boundaries are changes in the way an organisation separates itself from its environment (Maguire & King, 2004). Efforts to change organisational boundaries in police organisations are often frustrated (Long, Wells, & De Leon-Granados, 2002; Scott, 2000). A defensive organisational culture may be a key factor here (Paoline, 2003; Reiner, 1997). ILP innovation has encountered boundary defensiveness (Cope, 2004). Acceptance or
rejection of boundary changes associated with ILP innovation is likely to influence change effectiveness

Cope (2003) relies on a qualitative analysis to identify boundary defensiveness from the sworn officers and non-sworn staff. Maguire and King (2004) identify the key elements that distinguish the organisation from its environment as distinguishing the internal from the external and members from non-members by expanding or contracting their membership in either nature or number.

The key elements here are acceptance by the officer of boundary changes that are part of ILP related innovation such as introduction of non-sworn staff into intelligence groups; working in partnership with local council or local community groups to address problems; use of volunteers to support police; acceptance that other government departments have responsibilities to undertake enforcement activities to support police and that police should work closely with these agencies.

Using the Maguire and King (2004) definition the following operationalisation of boundary issues for officers is proposed.

<table>
<thead>
<tr>
<th></th>
<th>Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Intelligence work should be left to sworn staff</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Police need support from community groups to help with crime problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Volunteers have a role in supporting police to reduce crime</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. Many government agencies have responsibility to work with police to reduce crime</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Variable – Administrative apparatus / formalisation

Administrative apparatus and formalisation includes organisational structure and the systems and administrative arrangements employed by the organisation. Police administrative arrangements have been subject to persistent calls for reform (Kelling & Moore, 1988; Moore & Stephens, 1992; Skolnick & Bayley, 1988; Goldstein, 1990). A closely related concept is formalisation which describes the reliance of the organisation on formal rules and procedures (Maguire, 2003). Any radical police innovation such as ILP (King, 2000) will require changes to administrative arrangements and levels of formalisation. The response of staff to these changes is likely to impact on the success of innovation.

Hassell, Zhao and Maguire (2003) define formalisation as the number of rules and policies. Mastrofski, Ritti and Hoffmaster (1987, p. 397) explored officer’s perceptions of formalisation and administrative apparatus by exploring officers perceptions of punitive ness asking “Police officers here are penalized severely for violating department rules and procedures.” Agreeing strongly with that question suggests a high level of formalisation and a strong administrative apparatus.

In addition to the drawing on the definitions and approach described above operationalisation of formalisation/administrative apparatus has been drawn from a previous survey administered to officers in New England by The Police Foundation in 1999.

Drawing on these sources the following questions have been developed.
Bill King has suggested a wider focus than just formalisation. He suggests looking at how employees perceive organisational control mechanisms and thus it is not a measure of how comparative studies of organisations measure structure. At his suggestion item c (In my police area I feel that it is a long way up from frontline Officers to the Area Commander’s office) has been added which looks at social distance between management and line-level employees. Langworthy calls this hierarchal vertical height.

King also suggests distinguishing when the data is analysed the questions tapping formalisation and decentralisation of decision making. Items tapping formalisation are a and f and decentralisation of decision making are b, d and e.

Finally King suggested adding an questions looking at Administrative intensity – how do employees feel about the administrative component of the organisation – too large too small too many bosses not enough. Two items have been added items f and g.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sometimes, doing a good job means that I have to ignore police rules</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. There can be little action taken in my police Area until a supervisor approves a decision</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. In my police Area I feel that it is a long way up from the frontline to the Area Commander’s office</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. I feel I am my own boss in most matters (Reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

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Variable – Technology

Adapting to innovative technological reform includes general issues focusing on how an organisation accomplishes its work and particularly how an organisation adapts to new technology, in particular information management tools (Maguire, 2003). Maguire (1997, p. 557) defines technology as “a ‘system of techniques’ for accomplishing work or transforming raw materials into outputs ... service organisations such as the police depend on ‘social’ technologies … people are the raw material of police organisations and the type of social technology that the police select dictates how they process their raw materials”. Clearly this definition includes information technology (Chan, 1992; Chan, Brereton, Leqosz, & Doran, 2001) and more general technologies (Chan, 1992). Technology issues are particularly relevant for ILP reform given the importance of information management for ILP (Ratcliffe, 2001, 2002, 2004; Tilley, 2003b).

Technology here is more than just using IT but obviously includes this. A positive attitude to technology (broadly) and technology IT specifically is likely to impact positively on ILP innovation. This is because of the linkages between ILP innovation and both broad and narrow definitions of technology. Staff who believe technology is being managed well and supports rather than hinders them are more likely to engage in behaviours that support the technology and ILP innovation. If they believe there is purpose and meaning to technology they will engage in behaviours like submitting notings, intelligence reports and using maps and intelligence products.
Based on the above definitions the following measure is proposed. Item d is from Brody, Demarco and Lovrich (2002) innovation scale.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am frequently updated on Area crime trends</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. The Intelligence unit in my police Area makes good use of crime maps</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Employees are provided with training when new technology is introduced</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Information technology strongly supports crime reduction in my Area</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e. I can access the information I need to get my job done</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Instructions: Listed below are a number of statements regarding leadership, management and policing. Circle the number that best corresponds to your level of agreement with each statement.

**Variable – Leadership**

Leadership is seen as an increasingly important factor in shaping police behaviour, both for routine activities and organisational change (Ford, 2002; Long, 2003). Improved leadership is often associated with participatory management (Eck & Spelman, 1987; Goldstein, 1990) and a transformational leadership style (Dobby et al., 2004). Perceptions of local leadership are likely to be important factors associated with successful ILP innovation.

Two leadership items tapping transactional and transformational leadership styles are described below. The items have been developed from definitions of
transactional and transformational leadership provided by Antonakis, Avolio and Sivasubramaniam (2003), Bass and Avolio (1997) and Hoyt and Blascovich (2003). Generally transformational leadership is seen as more desirable for ILP innovation and change (Dobby et al., 2004; Ford, 2002; Long, 2003).

**Transactional Leadership**

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. It is made clear to me what needs to be done to get tasks completed</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. My superiors focus is on getting tasks completed</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Supervisors make it clear to me what is expected of me</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. My supervisors will notice if I do what's required of me</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Transformational Leadership**

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Some supervisors in my police Area are quite inspirational</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Working together is emphasised around here</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Supervisors express confidence in our team as a whole</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. There is a sense of mission in this police Area</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Variable – Management style**

Management style is generally viewed as being participative or non-participative, with a more participative style seen as more desirable for innovation (Eck & Spelman, 1987; Goldstein, 1990).
Lurigo and Skogan (1994) used three items to survey Chicago Police on participatory management. Dick and Metcalfe (2001) examined participative management in a UK police organisation. These measures have been combined below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I have influence over what goes on in regard to my job</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. My supervisor holds back information on things I should know about</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(Reverse scored)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. It is easy for me to communicate my ideas to management</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. My supervisor frequently seeks my opinion when a problem comes up</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>involving my job</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. My supervisor is good at encouraging team work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Variable – Organisational culture**

Police culture is a significant influence on police behaviour (Bowling & Foster, 2002; Foster, 2003; Reiner, 2000). Local variations of police organisational culture are likely to impact on ILP innovation. Significant cultural issues have been identified as impacting on ILP innovation (Cope, 2004). The Police organisational culture can be described as cynical, isolated and action oriented (Foster, 2003). The police culture develops its own norms, values and attitudes which can be reflected in the deleterious actions of street-level police (Goldsmith, 1990); or as part of a street-level police culture in an oppositional power struggle with management cops who have their own norms and values (Reuss-Ianni, 1983).
The proposed measure of organisational culture is a modification of the Cynicism Scale (Beck & Wilson, 1995; Lotz & Regoli, 1995; Regoli, Crank, & Rivera, 1990; Regoli & Poole, 1995). It is proposed to use a modified version of the Cynicism scale for a number of reasons. Many of the other measures of police culture tap features assessed separately in the proposed measure such as attitudes to management, administrative arrangements, community relations and training issues. Cynicism represents the negative features of organisational culture not tapped elsewhere in the survey. Finally many of the items were judged to be somewhat too complex and could benefit from simplification.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
a. The public has a lot of respect for the police (Reverse scored) | 1     | 2       | 3         | 3                | 4                |
b. When you get to know the Police from the inside you wonder it does half as well as it does | 1     | 2       | 3         | 3                | 4                |
c. Most opportunities in the police depend on who you know | 1     | 2       | 3         | 3                | 4                |
d. Police officers have a peculiar view of human nature because of what they see everyday | 1     | 2       | 3         | 3                | 4                |
e. The average police officer is dedicated to the ideals of police work (Reverse scored) | 1     | 2       | 3         | 3                | 4                |
Variable – Management of change

Excellent change management has been strongly associated with successful police innovation (Eck & Spelman, 1987; Ford, 2002; Moore et al., 1999; Skogan & Harkett, 1997). Local efforts to manage change are likely to impact on ILP innovation. The focus here is getting the perspective of the staff on how change is managed within the police area.

While a wide variety of private sector business focused literature on change management there is a surprisingly little looking at change management from the perspective of employees in public sector organisations, particularly in the Australasian context (Stewart & Kringas, 2003). An exception is Stewart and Kringas (2003) who explored key factors impacting on the quality of change management in the Australian public sector. Drawing on this work the following measure has been developed which focus on the key aspects of successful change management identified by Stewart and Kringas (2003).

<table>
<thead>
<tr>
<th>Variable – Management of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td>a. Generally new initiatives are not well managed (Reverse scored)</td>
</tr>
<tr>
<td>b. There are generally clear plans associated with any changes in my police Area</td>
</tr>
<tr>
<td>c. When changes happen I am kept well informed</td>
</tr>
<tr>
<td>d. Generally changes occur at about the right pace in my police Area</td>
</tr>
</tbody>
</table>

Variable – Loose coupling

The extent to which organisational goals are disconnected from administrative arrangements and officer behaviour is likely to be a source of
change resistance and barrier to innovation (Maguire, 2003). This is particularly the case where officers perceive loose arrangements between publicly stated goals and expectations or constraints on their own behaviour (Falcone, Wells, & Weisheit, 2002; Mastrofski, Ritti, & Hoffmaster, 1987). Clearly a perception on the part of officers that public commitment to ILP is loosely coupled to expectations of actual officer behaviour is likely to undermine ILP innovation.

Crank and Langworthy (1996, p. 218) define loose coupling as “a loosely articulated relationship between the formal goals and purposes of the organisation, and the day to day behaviours of line-level personnel” and noted how “internal review processes shielded the routine activities of organizational personnel from external oversight”.

Brunetto and Wharton (2003) identified a concept of management alignment, where changes are taken seriously at the top of the organisation and translated meaningfully into actions at the frontline. This was tested by asking the question “there is a big difference between the domestic violence policy and procedures and what my supervisor expects of me when called to a DV incident”. Paoline (2004) looked also at attitudes to procedural guidelines “in order to do their jobs, patrol officers must sometimes overlook search-and-seizure laws and other legal guidelines”.

Drawing on Crank and Langworthy’s (1996) definition and the management alignment operationalisation from Brunetto and Wharton (2003) and Paoline’s (2004) suggestion the questions below have been developed.
Intelligence-Led Policing in New Zealand

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
a. There is a difference between official policy and what is expected of me from day to day | 1     | 2        | 3               | 4               |
b. I’m expected to sometimes overlook official guidelines | 1     | 2        | 3               | 4               |
c. There is a strong link between what my Area Commander wants and what my immediate supervisor expects (Reverse scored) | 1     | 2        | 3               | 4               |

**Variable – Interconnectedness**

The level of social viscosity within a local police social network is likely to be a significant factor in supporting innovation, developing change resistance or both, possibly at different time during the innovation process (Linton, 2002; Rogers, 2003).

Several scales were considered. The measure used is from Zeitz, Johannesson and Ritchie (1997) who developed a measure of social cohesion. This measure taps the interconnectedness component sought by the measure (α = .755).

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
a. People in my work unit enjoy their colleagues | 1     | 2        | 4               | 5               |
b. Co-workers in my work unit are like a family | 1     | 2        | 4               | 5               |
c. Problems exist between colleagues in my police Area (Reverse scored) | 1     | 2        | 4               | 5               |
d. I trust my coworkers to do what is in the best interests of the organisation 1 2 4 5

**Variable – Management support for ILP**

This measure describes the perceptions officers hold of actual support by management for ILP.

The operationalisation is from Ford, Weissbein and Plamondon (2003) who assessed management support for COP (α = .90). This approach has been modified for use in assessing management support for ILP.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Management displays a commitment to Intelligence-led policing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Top management establishes policies and procedures that are consistent with meeting the needs of Intelligence-led policing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. My Police Area takes steps to remove barriers that prohibit implementing Intelligence-led policing activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Variable – Innovativeness**

The innovation scale (Brody, DeMarco, & Lovrich, 2002) assessed whether police officers believed that innovation was encouraged within their department as part of assessing the relationships between COP and job satisfaction (α = .82). A modified version of measure is used below. A direct measure of officer views on innovativeness within their local police areas is likely to correlate strongly with ILP innovation.
Intelligence-Led Policing in New Zealand

<table>
<thead>
<tr>
<th>a. In my police Area risk-taking is encouraged without fear of punishment for mistakes</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. In my police Area supervisors/team leaders are receptive to change</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c. Local Area bosses are receptive to change</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>d. In my Police Area new practices and ways of doing business are encouraged</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Please indicate your sex

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

What is your ethnic background?

<table>
<thead>
<tr>
<th>Maori</th>
<th>Pacific Island</th>
<th>European Caucasian</th>
<th>Asian</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

What year were you born?

<table>
<thead>
<tr>
<th>________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

What Police Area do you work in?

<table>
<thead>
<tr>
<th>________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

What is your current rank/designation?

<table>
<thead>
<tr>
<th>Non Sworn - Yes No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

If No skip to Sworn Questions

<table>
<thead>
<tr>
<th>Sworn - Yes No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Constable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working shift I car work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
</tr>
</tbody>
</table>
### Road Policing 1.2

### Community Constable 1.3

### Youth Aid 1.4

### Investigator 1.5

### Intelligence Unit 1.6

### Other please indicate _________________ 1.7

### Detective Constable / Detective 2

### Sergeant 3

### Working shift I car work 3.1

### Road Policing 3.2

### Community Constable 3.3

### Youth Aid 3.4

### Investigator 3.5

### Intelligence Unit 3.6

### Detective Sergeant 4

---

**How many years have you worked for the NZ Police?**

________________________

---

**If you joined the NZ Police as part of the integration with the Ministry of Transport, please indicate how many years you worked for the Ministry of Transport prior to joining the NZ Police?**

________________________
Intelligence-Led Policing in New Zealand

What is the highest level of non police related formal education you have completed?

- Completed post secondary school NZQA qualification: 1
- Completed Trade qualification: 2
- Some university but did not graduate: 3
- Completed under graduate degree: 4
- Completed some post graduate courses but did not qualify: 5
- Completed post graduate degree: 6

What did you do before joining the Police?

Military

Do you have a home computer attached to the internet?

Thank you very much for your cooperation!
Appendix D: Survey Instrument as Administered

Police Officer Survey:

Intelligence-led Policing

Introduction
This survey is part of a study exploring the development of Intelligence led policing within the New Zealand Police. As part of the study this survey seeks your views on a range of issues related to your work environment. For the purposes of this survey the terms Intelligence-led policing and Crime and Crash reduction are interchangeable. The term Intelligence-led policing has been used throughout the survey.

This is not a test. There are no right or wrong answers. What is important is your knowledge, impressions, recollection of actions and opinions. Whether you are familiar or not with Intelligence-led policing your answers are critical to the research.

Please answer all the questions as best you can.

Instructions: Below are statements describing concepts relating to Intelligence led policing. Circle the number that indicates your familiarity with the concepts. There are no right or wrong answers.

Section 1

<table>
<thead>
<tr>
<th>Not at all familiar</th>
<th>A little or somewhat familiar</th>
<th>Familiar</th>
<th>Very familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Working from an evidence base to guide practice</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. The 3 I model</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Managing crime and disorder hot spots</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Intelligence-Led Policing in New Zealand

d. Influencing decision makers

1 2 3 4

e. Impacting on the criminal environment

1 2 3 4

**Instructions:** Below are statements describing views about Intelligence led policing. Circle the number that best corresponds to your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Section 2</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am committed to the idea of Intelligence-led policing</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Intelligence-led policing is just a political move by management</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. My police Area is making Intelligence-led policing effective</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Intelligence-led policing is just a distraction from real police work</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Instructions:** Listed below are a number of statements specifically related to your feelings about your work. Circle the number that best corresponds to your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Section 3</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am willing to put in a great deal of effort beyond that normally expected to help this police Area be successful</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D: Survey Instrument as Administered

b. All things considered, I am satisfied with my job 1 2 3 4

c. I am proud to tell others that I am part of this police Area 1 2 3 4
d. This police Area really inspires the best in me in the way of job performance 1 2 3 4
e. I couldn’t care less about the fate of this police Area 1 2 3 4

**Instructions:** Listed below are a number of statements related to police work and law enforcement. Circle the number that best corresponds to your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Section 4</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Between jobs I try to get bail checks completed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. When I have the time I try to complete directed patrols</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. If I have free time I’m unlikely to do anything recommended by the Intelligence unit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. I concentrate my patrol activities in hot spots identified by the Area Intelligence unit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Section 5

This question is about your understanding of your supervisor’s priorities. Again there are no right or wrong answers. What is important is your understanding of your supervisor’s priorities.

Please rate the priorities listed below according to how important you believe they are to your immediate normal supervisor.

Indicate by ranking the six priorities. Rank top priority as 1, second top priority as 2 through to bottom priority as 6. Rank all priorities.

<table>
<thead>
<tr>
<th>Supervisor Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reducing crime in identified hot spots</td>
</tr>
<tr>
<td>b. Keeping arrest rates up</td>
</tr>
<tr>
<td>c. Enforcing the law</td>
</tr>
<tr>
<td>d. Targeting identified repeat offenders</td>
</tr>
<tr>
<td>e. Maintaining order, preventing disorder</td>
</tr>
<tr>
<td>f. Completing and following up on bail checks</td>
</tr>
</tbody>
</table>

Instructions: Listed below are a number of statements about police activities. Circle the number that best corresponds to your level of activity.

To what extent do you participate in the following activities?

<table>
<thead>
<tr>
<th>Section 6</th>
<th>Never</th>
<th>A few times a year</th>
<th>Once a month</th>
<th>Once a week</th>
<th>Once a shift</th>
<th>More than once a shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Voluntarily providing information to your local Intelligence unit eg notings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>b. Checking that offenders are not breaching their bail conditions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
c. Patrolling in specific locations at specific times suggested by your local Intelligence section

        1  2  3  4  5  6

d. Completing inquiries or looking in locations for specific known offenders identified by your Intelligence section

        1  2  3  4  5  6

Instructions: Listed below are a number of statements regarding relationships between police and various organisations or community groups. Circle the number that best corresponds to your level of agreement with each statement. Remember your views are what is important here.

Section 7 Strongly Agree Agree Disagree Strongly Disagree

a. Media coverage is disruptive to my work as a police officer

        1  2  3  4

b. The image of the New Zealand Police has been enhanced by Media coverage

        1  2  3  4

c. My career as a police officer has been affected by media coverage

        1  2  3  4

d. Media coverage has made me reconsider my decision to become a police officer

        1  2  3  4
### Section 8

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The police Area I work in has a poor working relationship with local government authorities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. The local authority in the police Area I work in is supportive of the police</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Police and local government officials work closely together on community problems in the police Area I work in</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### Section 9

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The Police Association in my local police Area are frequently hostile to the actions of local Police management</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Generally the local Police Association collaborates well with the local Police Area Commander</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### Section 10

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The average citizen in my police Area is willing to assist a police officer in solving crimes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. The public in my police Area has no respect for police officers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix D: Survey Instrument as Administered

c. The police Area I work in has excellent relations with ethic groups in the community 1 2 3 4
e. The majority of citizens in my police Area support the police

Instructions: Listed below are a number of statements regarding environmental factors and police. Circle the number that best corresponds to your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Section 11</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In general the level of crime and disorder in my police Area is low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. The volume of work in my police Area means that we are always busy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Generally we are so busy in my Area that we have to use shortcuts to get things done</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 12</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. There are a wide variety of ethnic groups in the population I police</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. There are big differences between the rich and poor communities I work in day to day</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. I notice a lot of overcrowding in the communities I work in</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Intelligence-Led Policing in New Zealand

d. Many of the communities I work in seem unable to cope with their own problems

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

Section 13

**Strongly Agree** | **Agree** | **Disagree** | **Strongly Disagree**

a. The communities I work in are quite stable

|   | 1 | 2 | 3 | 4 |

b. Residents move in and out of the communities I work in a lot

|   | 1 | 2 | 3 | 4 |

c. The population of the communities I work is growing quickly

|   | 1 | 2 | 3 | 4 |

d. Recent economic changes are impacting negatively on the police Area I work in

|   | 1 | 2 | 3 | 4 |

Section 14

**Strongly Agree** | **Agree** | **Disagree** | **Strongly Disagree**

a. Some more affluent communities expect the Police to do a lot more for them than other communities

|   | 1 | 2 | 3 | 4 |

b. All the neighbourhoods in my police Area are more or less the same

|   | 1 | 2 | 3 | 4 |

c. Officers in my police Area will tolerate minor offending more in disadvantaged neighbourhoods than better off neighbourhoods

|   | 1 | 2 | 3 | 4 |

d. Family violence is accepted more in some neighbourhoods than others

|   | 1 | 2 | 3 | 4 |
Appendix D: Survey Instrument as Administered

e. Worries about officer personal safety in the rough neighbourhoods of my police Area influence the way police operate 1 2 3 4

Instructions: Listed below are a number of statements regarding administration in your police Area. Circle the number that best corresponds to your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Section 15</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I feel that the job I do day to day contributes to achieving the goals of my police Area</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. I work hard to meet the goals of my police Area</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 16</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Intelligence work should be left to sworn staff</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Police need support from community groups to help with crime problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Volunteers have a role in supporting police to reduce crime</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. Many government agencies have responsibility to work with police to reduce crime</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 17</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sometimes, doing a good job means that I have to ignore police rules</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. There can be little action taken in my police Area until a supervisor approves a decision</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. In my police Area I feel that it is a long way up from the frontline to the Area Commander's office</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Intelligence-Led Policing in New Zealand

d. I feel I am my own boss in most matters

1 2 3 4

e. Generally I’m required to spend far too much time engaged in administrative tasks (eg time sheets, requesting leave)

1 2 3 4

Section 18

Strongly Agree Agree Disagree Strongly Disagree

a. I am frequently updated on Area crime trends

1 2 3 4

b. The Intelligence unit in my police Area makes good use of crime maps

1 2 3 4

c. Employees are provided with training when new technology is introduced

1 2 3 4

d. Information technology strongly supports crime reduction in my Area

1 2 3 4

e. I can access the information I need to get my job done

1 2 3 4

Instructions: Listed below are a number of statements regarding leadership and management in your police Area. Circle the number that best corresponds to your level of agreement with each statement.

Section 19

Strongly Agree Agree Disagree Strongly Disagree

a. It is made clear to me what needs to be done to get tasks completed

1 2 3 4

b. My superior’s focus is on getting tasks completed

1 2 3 4

c. Some supervisors in my police Area are quite inspirational

1 2 3 4

d. There is a sense of mission in this police Area

1 2 3 4

e. Supervisors make it clear to me what is expected of me

1 2 3 4

f. My supervisors will notice if I do what’s required of me

1 2 3 4

g. Working together is emphasised around here

1 2 3 4

h. Supervisors express confidence in our team as a whole

1 2 3 4
### Appendix D: Survey Instrument as Administered

#### Section 20

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I have influence over what goes on in regard to my job</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. My supervisor holds back information on things I should know about</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. It is easy for me to communicate my ideas to management</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. My supervisor frequently seeks my opinion when a problem comes up involving my job</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e. My supervisor is good at encouraging teamwork</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Section 21

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The public has a lot of respect for the police</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. When you get to know the Police from the inside you wonder how it does half as well as it does</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Most opportunities in the police depend on who you know</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Police officers have a peculiar view of human nature because of what they see everyday</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e. The average police officer is dedicated to the ideals of police work</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Section 22

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Generally new initiatives are not well managed</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. There are generally clear plans associated with any changes in my police area</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. When changes happen I am kept well informed</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Generally changes occur at about the right pace in my police area</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Section 23</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>a. There is a difference between official policy and what is expected of me from day to day</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. I’m expected to sometimes overlook official guidelines</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. There is a strong link between what my Area Commander wants and what my immediate supervisor expects</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 24</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. People in my work unit enjoy their colleagues</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Co-workers in my work unit are like a family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Problems exist between colleagues in my police Area</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. I trust my coworkers to do what is in the best interests of the organisation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 25</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Management displays a commitment to Intelligence-led policing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Top management establishes policies and procedures that are consistent with meeting the needs of Intelligence-led policing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. My police Area takes steps to remove barriers that prohibit implementing Intelligence-led policing activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix D: Survey Instrument as Administered

Section 26

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In my police Area risk-taking is encouraged without fear of punishment for mistakes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. In my police Area supervisors/team leaders are receptive to change</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Local Area bosses are receptive to change</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. In my police Area new practices and ways of doing business are encouraged</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Thanks for getting this far. Please answer the following questions. Please circle the appropriate number.

Please indicate your sex

Male 1  Female 2

What is your ethnic background?

Maori 1
Pacific Island 2
European Caucasian 3
Asian 4
Other (specify) 5

What year were you born? ________________________

What Police Area do you work in? ________________________

What station or location do you work from? ________________________
What is your current rank/designation?

- Constable 1
- Detective / Detective Constable 2
- Sergeant 3
- Detective Sergeant 4

What are your current duties?

- General Duties 1
- Road Policing 2
- Community Constable 3
- Youth Aid 4
- Detective / Investigator 5
- Intelligence Unit 6
- Dog Section 7
- Other please indicate _________________ 8

How many years have you worked for the NZ Police?

________________________

If you joined the NZ Police as part of the integration with the Ministry of Transport, please indicate how many years you worked for the Ministry of Transport prior to joining the NZ Police? (Otherwise leave this question)

________________________

What is the highest level of non police formal education you have completed?

- Completed post secondary school NZQA qualification 1
- Completed Trade qualification 2
- Some university but did not graduate 3
- Completed under graduate degree 4
- Completed some post graduate courses but did not qualify 5
- Completed post graduate degree 6
In what field did you work immediately before joining the Police? Pick the category that best describes your work.

- Military 1
- Trade 2
- Service Industry 3
- Professional 4
- Government / Local Government 5
- Self Employed 6
- Agricultural sector 7
- Not employed 8
- Full time care giver 9
- Student 10
- Other Please Specify 11

Do you have a home computer attached to the internet? Yes 1 No 2

Thank you very much for your cooperation!
Appendix E: Survey Instrument Changed Response

Categories

Police Officer Survey: Intelligence-led Policing

Recoded to show reversed scores

Introduction

This survey is part of a study exploring the development of Intelligence led policing within the New Zealand Police. As part of the study this survey seeks your views on a range of issues related to your work environment. For the purposes of this survey the terms Intelligence-led policing and Crime and Crash reduction are interchangeable. The term Intelligence-led policing has been used throughout the survey.

This is not a test. There are no right or wrong answers. What is important is your knowledge, impressions, recollection of actions and opinions. Whether you are familiar or not with Intelligence-led policing your answers are critical to the research.

Please answer all the questions as best you can.

Instructions: Below are statements describing concepts relating to Intelligence led policing. Circle the number that indicates your familiarity with the concepts. There are no right or wrong answers.

<table>
<thead>
<tr>
<th>Section 1 – UNCHANGED</th>
<th>Not at all familiar</th>
<th>A little or somewhat familiar</th>
<th>Familiar</th>
<th>Very familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Working from an evidence base to guide practice</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. The 3 I model</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Managing crime and disorder hot spots</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix E: Survey Instrument Changed Response Categories

<table>
<thead>
<tr>
<th>d. Influencing decision makers</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. Impacting on the criminal environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Instructions: Below are statements describing views about Intelligence-led policing. Circle the number that best corresponds to your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Section 2 - Q2a</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am committed to the idea of Intelligence-led policing (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Intelligence-led policing is just a political move by management (Reversed)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c. My police Area is making Intelligence-led policing effective (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Intelligence-led policing is just a distraction from real police work (Reversed)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Instructions: Listed below are a number of statements specifically related to your feelings about your work. Circle the number that best corresponds to your level of agreement with each statement.
### Section 3 - Q3a to Q3e recoded.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am willing to put in a great deal of effort beyond that normally expected to help this police Area be successful (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. All things considered, I am satisfied with my job (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. I am proud to tell others that I am part of this police Area (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. This police Area really inspires the best in me in the way of job performance (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. I couldn't care less about the fate of this police Area (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Instructions:** Listed below are a number of statements related to police work and law enforcement. Circle the number that best corresponds to your level of agreement with each statement.

### Section 4 Q4a; Q4b; Q4d reversed; Q4d; recoded.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Between jobs I try to get bail checks completed (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
### Appendix E: Survey Instrument Changed Response Categories

b. When I have the time I try to complete directed patrols (Recoded)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

---

c. If I have free time I’m unlikely to do anything recommended by the Intelligence unit (Reversed)

<table>
<thead>
<tr>
<th></th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
</table>

---

d. I concentrate my patrol activities in hot spots identified by the Area Intelligence unit (Recoded)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

---

Section 5 – UNCHANGED

This question is about your understanding of your supervisor’s priorities. Again there are no right or wrong answers. What is important is your understanding of your supervisor’s priorities.

Please rate the priorities listed below according to how important you believe they are to your immediate normal supervisor.

Indicate by ranking the six priorities. Rank top priority as 1, second top priority as 2 through to bottom priority as 6. Rank all priorities.

<table>
<thead>
<tr>
<th>Supervisor Priority</th>
<th>a. Reducing crime in identified hot spots</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b. Keeping arrest rates up</td>
</tr>
<tr>
<td></td>
<td>c. Enforcing the law</td>
</tr>
<tr>
<td></td>
<td>d. Targeting identified repeat offenders</td>
</tr>
<tr>
<td></td>
<td>e. Maintaining order, preventing disorder</td>
</tr>
<tr>
<td></td>
<td>f. Completing and following up on bail checks</td>
</tr>
</tbody>
</table>
Instructions: Listed below are a number of statements about police activities. Circle the number that best corresponds to your level of activity.

To what extent do you participate in the following activities?

Section 6 – UNCHANGED

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>A few times a year</th>
<th>Once a month</th>
<th>Once a week</th>
<th>Once a shift</th>
<th>More than once a shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Voluntarily providing information to your local Intelligence unit eg notings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>b. Checking that offenders are not breaching their bail conditions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>c. Patrolling in specific locations at specific times suggested by your local Intelligence section</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>d. Completing inquiries or looking in locations for specific known offenders identified by your Intelligence section</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Instructions: Listed below are a number of statements regarding relationships between police and various organisations or community groups. Circle the number that best corresponds to your level of agreement with each statement. Remember your views are what is important here.

Shows recoded scoring

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Media coverage is disruptive to my work as a police officer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. The image of the New Zealand Police has been enhanced by Media coverage (Reversed)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

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Appendix E: Survey Instrument Changed Response Categories

c. My career as a police officer has been affected by media coverage
   1 2 3 4

d. Media coverage has made me reconsider my decision to become a police officer
   1 2 3 4

Section 8 - Q8b; Q8c recoded.

a. The police Area I work in has a poor working relationship with local government authorities
   1 2 3 4

b. The local authority in the police Area I work in is supportive of the police (Recoded)
   1 2 3 4

c. Police and local government officials work closely together on community problems in the police Area I work in (Recoded)
   1 2 3 4

Section 9 Q9a reversed; Q9b; recoded.

a. The Police Association in my local police Area are frequently hostile to the actions of local Police management (Reverse scored)
   4 3 2 1

b. Generally the local Police Association collaborates well with the local Police Area Commander (Recoded)
   1 2 3 4

Section 10 Q10a; Q10b reversed; Q10c; Q10d; recoded.

a. The average citizen in my police Area is willing to assist a police officer in solving crimes (Recoded)
   1 2 3 4

b. The public in my police Area has no respect for police officers (Reversed)
   4 3 2 1
c. The police Area I work in has excellent relations with ethnic groups in the community (Recoded)

1 2 3 4

d. The majority of citizens in my police Area support the police (Recoded)

1 2 3 4

Instructions: Listed below are a number of statements regarding environmental factors and police. Circle the number that best corresponds to your level of agreement with each statement.

Section 11 Q11a reversed; Q11b-Q11c recoded;

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In general the level of crime and disorder in my police Area is low (Reversed)</td>
<td>4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The volume of work in my police Area means that we are always busy (Recoded)</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Generally we are so busy in my Area that we have to use shortcuts to get things done (Recoded)</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 12 Q12a to Q12d: recoded

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. There are a wide variety of ethnic groups in the population I police (Recoded)</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. There are big differences between the rich and poor communities I work in day to day (Recoded)</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. I notice a lot of overcrowding in the communities I work in (Recoded)</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Many of the communities I work in seem unable to cope with their own problems (Recoded)</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: Survey Instrument Changed Response Categories

<table>
<thead>
<tr>
<th>Section 13 Q13a reversed.</th>
<th>Shows recoded scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>a. The communities I work in are quite stable (Reversed)</td>
<td>4</td>
</tr>
<tr>
<td>b. Residents move in and out of the communities I work in a lot</td>
<td>1</td>
</tr>
<tr>
<td>c. The population of the communities I work is growing quickly</td>
<td>1</td>
</tr>
<tr>
<td>d. Recent economic changes are impacting negatively on the police Area I work in</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 14 Q14a recoded; Q14b reversed; Q14c to 14e recoded.</th>
<th>Shows recoded scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>a. Some more affluent communities expect the Police to do a lot more for them than other communities (Recoded)</td>
<td>1</td>
</tr>
<tr>
<td>b. All the neighbourhoods in my police Area are more or less the same (Reversed)</td>
<td>4</td>
</tr>
<tr>
<td>c. Officers in my police Area will tolerate minor offending more in disadvantaged neighbourhoods than better off neighbourhoods (Recoded)</td>
<td>1</td>
</tr>
<tr>
<td>d. Family violence is accepted more in some neighbourhoods than others (Recoded)</td>
<td>1</td>
</tr>
<tr>
<td>e. Worries about officer personal safety in the rough neighbourhoods of my police Area influence the way police operate (Recoded)</td>
<td>1</td>
</tr>
</tbody>
</table>
Instructions: Listed below are a number of statements regarding administration in your police Area. Circle the number that best corresponds to your level of agreement with each statement.

Section 15 Q15a; Q15b; recoded

a. I feel that the job I do day to day contributes to achieving the goals of my police Area (Recoded)  
1 2 3 4
b. I work hard to meet the goals of my police Area (Recoded)  
1 2 3 4

Section 16 Q16a; Q16b; Q16c; 16d; recoded

a. Intelligence work should be left to sworn staff (Recoded)  
1 2 3 4
b. Police need support from community groups to help with crime problems (Recoded)  
1 2 3 4
c. Volunteers have a role in supporting police to reduce crime (Recoded)  
1 2 3 4
e. Many government agencies have responsibility to work with police to reduce crime (Recoded)  
1 2 3 4

Section 17 Q17a to Q17c recoded; Q17d reversed; Q17e; recoded

a. Sometimes, doing a good job means that I have to ignore police rules (Recoded)  
1 2 3 4
b. There can be little action taken in my police Area until a supervisor approves a decision (Recoded)  
1 2 3 4
c. In my police Area I feel that it is a long way up from the frontline to the Area Commander’s office (Recoded)  
1 2 3 4
### Appendix E: Survey Instrument Changed Response Categories

**Section 18 Q18a to Q18e** recoded; **Shows recoded scoring**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I am frequently updated on Area crime trends (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. The Intelligence unit in my police Area makes good use of crime maps (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Employees are provided with training when new technology is introduced (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Information technology strongly supports crime reduction in my Area (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. I can access the information I need to get my job done (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Instructions:** Listed below are a number of statements regarding leadership and management in your police Area. Circle the number that best corresponds to your level of agreement with each statement.

**Section 19 Q19a to 19h** recoded; **Shows recoded scoring**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. It is made clear to me what needs to be done to get tasks completed (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. My superior’s focus is on getting tasks completed (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Some supervisors in my police Area are quite inspirational (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. There is a sense of mission in this police Area (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
e. Supervisors make it clear to me what is expected of me (Recoded)  
1 2 3 4

f. My supervisors will notice if I do what’s required of me (Recoded)  
1 2 3 4

g. Working together is emphasised around here (Recoded)  
1 2 3 4

h. Supervisors express confidence in our team as a whole (Recoded)  
1 2 3 4

Section 20  Q20a to Q20e recoded;

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>
| a. I have influence over what goes on in regard to my job (Recoded)  
1 2 3 4 |
| b. My supervisor holds back information on things I should know about (Recoded)  
1 2 3 4 |
| c. It is easy for me to communicate my ideas to management (Recoded)  
1 2 3 4 |
| d. My supervisor frequently seeks my opinion when a problem comes up involving my job (Recoded)  
1 2 3 4 |
| e. My supervisor is good at encouraging team work (Recoded)  
1 2 3 4 |

Section 21  Q21a to Q21e recoded;

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>
| a. The public has a lot of respect for the police (Recoded)  
1 2 3 4 |
| b. When you get to know the Police from the inside you wonder how it does half as well as it does (Recoded)  
1 2 3 4 |
| c. Most opportunities in the police depend on who you know (Recoded)  
1 2 3 4 |
| d. Police officers have a peculiar view of human nature because of what they see everyday (Recoded)  
1 2 3 4 |
| e. The average police officer is dedicated to the ideals of police work (Recoded)  
1 2 3 4 |
### Appendix E: Survey Instrument Changed Response Categories

#### Section 22
Q22a reversed; Q22b to 22d recoded.

<table>
<thead>
<tr>
<th>Shows recoded scoring</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Generally new initiatives are not well managed (Reversed)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b. There are generally clear plans associated with any changes in my police Area (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. When changes happen I am kept well informed (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Generally changes occur at about the right pace in my police Area (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Section 23
Q23a; Q23b; Q23c; recoded

<table>
<thead>
<tr>
<th>Shows recoded scoring</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. There is a difference between official policy and what is expected of me from day to day (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. I'm expected to sometimes overlook official guidelines (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. There is a strong link between what my Area Commander wants and what my immediate supervisor expects (Reversed)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Section 24
Q24a recoded; Q24b recoded; Q24c reversed; Q24d recoded;

<table>
<thead>
<tr>
<th>Shows recoded scoring</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. People in my work unit enjoy their colleagues (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Co-workers in my work unit are like a family (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Problems exist between colleagues in my police Area (Reversed)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d. I trust my coworkers to do what is in the best interests of the organisation (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
### Section 25 Q25a to Q25c recoded.

<table>
<thead>
<tr>
<th>Shows recoded scoring</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Management displays a commitment to Intelligence-led policing (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Top management establishes policies and procedures that are consistent with meeting the needs of Intelligence-led policing (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. My police Area takes steps to remove barriers that prohibit implementing Intelligence-led policing activities (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### Section 26 Q26a to26d recoded.

<table>
<thead>
<tr>
<th>Shows recoded scoring</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In my police Area risk-taking is encouraged without fear of punishment for mistakes (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. In my police Area supervisors/team leaders are receptive to change (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Local Area bosses are receptive to change (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. In my police Area new practices and ways of doing business are encouraged (Recoded)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Thanks for getting this far. Please answer the following questions. Please circle the appropriate number.

Please indicate your sex
Male 1  Female 2

What is your ethnic background?
Maori 1
Pacific Island 2
European Caucasian 3
Asian 4
Other (specify) 5

What year were you born? ________________________

What Police Area do you work in? ________________________

What station or location do you work from? ________________________

What is your current rank/designation?
Constable 1
Detective / Detective Constable 2
Sergeant 3
Detective Sergeant 4

What are your current duties?
General Duties 1
Road Policing 2
Community Constable 3
Youth Aid 4
Detective / Investigator 5
Intelligence Unit 6
Dog Section 7
Other please indicate ________________________ 8
How many years have you worked for the NZ Police? ________________

If you joined the NZ Police as part of the integration with the Ministry of Transport, please indicate how many years you worked for the Ministry of Transport prior to joining the NZ Police? (Otherwise leave this question) ________________

What is the highest level of non police formal education you have completed?

- Completed post secondary school NZQA qualification 1
- Completed Trade qualification 2
- Some university but did not graduate 3
- Completed under graduate degree 4
- Completed some post graduate courses but did not qualify 5
- Completed post graduate degree 6

In what field did you work immediately before joining the Police? Pick the category that best describes your work.

- Military 1
- Trade 2
- Service Industry 3
- Professional 4
- Government / Local Government 5
- Self Employed 6
- Agricultural sector 7
- Not employed 8
- Full time care giver 9
- Student 10
- Other Please Specify 11
Do you have a home computer attached to the internet?  
Yes 1  
No 2  

Thank you very much for your cooperation!
Appendix F: Questions for Police Managers

Introduction
Ratcliffe (2003) identifies the key features of ILP as the use of criminal intelligence analysis as an objective decision-making tool, focused on crime reduction and prevention through making effective use of policing strategies and external partnerships. Ratcliffe (2003) assigns clear roles to the main participants in ILP. Analysts and intelligence groups are responsible for interpreting the criminal environment and influencing decisions makers. Decision makers are responsible for using effective strategies and partnerships to impact on the criminal environment.

Environmental factors, concepts and questions
1. Can you describe the main crime, disorder and social problems that impact on your District (X Police Area)?
2. How busy are District and (X Police Area) staff? Does this impact on their ability to undertake intelligence directed work?

Reminder

How much of this is perception and how much reality?

3. Can you describe how changes in the local environment (economic, social, political, cultural) have impacted on District (Police Area X) over recent years?
4. Can you describe any neighbourhoods in this police Area where policing might be more sensitive or undertaken differently?

Reminder

Perhaps prompt by suggesting concentrations of wealth / poverty / ethnic groups / locations where community norms are perceived differently

5. Can you describe the key relationships District (Police Area X) is engaged with? What is the focus of those relationships? What is the level of information sharing and agreement on shared targets and activities with key partners?

Reminder

How strong or weak are the external relationships in this police area?

Organisational Level Factors Concepts and Questions / Individual
6. How would you describe District (Area X) workforce? Are they generally happy and committed to policing?

Reminder

Levels of job satisfaction and commitment of this workforce? How well does this police area reflect the community they serve? In particular how strongly do the make up of staff and the attitudes of staff reflect the local community?
7. Based on your experience how do staff in District (Police Area X) use their discretionary time (time not directed by Communication Centres or supervisors)? To what extent do staff use their discretionary time to engage in activities that support ILP?

*Reminder*

*Bail checks, directed patrols*

8. Can you describe the key goals of this police Area?

*Reminder*

*How well have those goals been bought into by staff within the Area? Issue of loose coupling – strength of linkage between goals and expected behaviour*

9. How formally or informally is this Area managed? Has ILP changed the way this police Area undertakes its day to day business?

*Reminder*

*How strictly are rules and sanctions employed? Are project management techniques used? What structural or administrative arrangements have changed or been developed to support ILP? To what extent are existing practices only being embedded?*

10. How has information technology been used in this police Area to support ILP development or activities?

11. Is there a particular organisational culture that sets this police Area apart? Can you describe that culture?

12. In general can you describe how open to innovation and change, new ideas and approaches would you say this police Area is? What are the reasons for this open or closed position?

**ILP**

13. Can you describe the overall history of ILP development in your District?

*Reminder*

*Have there been any deliberate planned efforts to introduce ILP as a planned change in the District or has it just evolved? Can you describe the deliberate efforts or process of evolution? Can you describe the pace of ILP change? Was it slow and evolutionary or fast and big bang? Guiding coalition? Where did the ideas come from – particular people? How where they received communicated developed? Has ILP spawned lesser innovations? Can the District be described as being continually innovative? What sort of innovation is this edict, through research, confluence of problems and solutions, stimulated by local government, professional, accrediting and auditing organisations or social learning? What stage is the innovation at? Early or late adopter?*
Intelligence-Led Policing in New Zealand

14. How would you describe the level of knowledge and level of commitment of District (X Area) staff have towards ILP?

Reminder

What led to that state of knowledge commitment? Planned efforts? What training been put in place to educate staff about ILP?

How do staff feel about their local intelligence section?

What is the level of supervisor commitment?

15. Was there any resistance from staff over moving to ILP policing and if so how did this manifest itself? How was that resistance overcome?

16. How would you describe the commitment of top management in the Police to ILP?

Reminder

Has this changed?

17. Can you describe your own feelings about ILP?

18. How would you describe your personal leadership / management style and the leadership / management and style of Area X?

Reminder

Does the manager have a particular approach to implementing change?

19. Can you describe your own formal or informal police networks? Who for example where do you find new ideas and do you test new ideas with? What police communities do you participate in?

Reminder

Learning style? Use of internet?

20. Characteristics

21. Age, Sex, Rank

22. Education qualifications

23. Career history and Career aspirations
Appendix G: Questions for Community Partners

Environmental factors, concepts and questions
1. Can you describe the main crime, disorder and social problems in Area X?
2. Can you describe how changes in the local environment (economic, social, political, cultural) have impacted on Police Area X over recent years?
3. Can you describe any neighbourhoods in this police Area where policing might be more sensitive or undertaken differently?

Reminder
Perhaps prompt by suggesting concentrations of wealth / poverty / ethnic groups / locations where community norms are perceived differently

4. Can you describe your relationship with Police Area X? What is the history of this relationship?

Reminder
Frontline officers may have low awareness of key relationships? How strong or weak are the external relationships in this police area? What is the focus of those relationships? What is the level of information sharing and agreement on shared targets and activities with key partners?

Organisational-level factors concepts and questions and individual factors
Ratcliffe (2003) identifies the key features of ILP as the use of criminal intelligence analysis as an objective decision-making tool, focused on crime reduction and prevention through making effective use of policing strategies and external partnerships. Ratcliffe (2003) assigns clear roles to the main participants in ILP. Analysts and intelligence groups are responsible for interpreting the criminal environment and influencing decisions makers. Decision makers are responsible for using effective strategies and partnerships to impact on the criminal environment.

5. Can you describe what knowledge you have (if any of) ILP?

Reminder
Any knowledge of deliberate planned efforts to introduce ILP as a planned change in the Area or has it just evolved? Can you describe the deliberate efforts or process of evolution? Can you describe the pace of ILP change? Was it slow and evolutionary or fast and big bang? Guiding coalition? Where did the ideas come from – particular people? How where they received communicated developed? How would you describe the level of knowledge and level of commitment X Area staff have towards ILP? What led to that state of knowledge commitment? Planned efforts? What training been put in place to educate staff about ILP? How do staff feel about their local intelligence section? What is the level of supervisor commitment? Is there currently or has there been any resistance from staff to ILP policing and if so how did this manifest itself? How was that resistance overcome?
6. From your point of view how would you describe Area X?

Reminder

Levels of job satisfaction and commitment of this workforce? How well does this police area reflect the community they serve? In particular how strongly do the make up of staff and the attitudes of staff reflect the local community? Are they generally happy and committed to policing? Based on your experience how do staff in Police Area X use their discretionary time (time not directed by Communication Centres or supervisors)? To what extent do staff use there discretionary time to engage in activities that support ILP? Bail checks, directed patrols

7. Can you describe the key goals of this police Area?

Reminder

How well have those goals been bought into by staff within the Area? Issue of loose coupling – strength of linkage between goals and expected behaviour. How well do frontline staff support those goals?

8. Can you comment on how formally or informally is Area X managed? Has ILP changed the way this police Area undertakes its day to day business?

Reminder

How strictly are rules and sanctions employed? Are project management techniques used? What structural or administrative arrangements have changed or been developed to support ILP?

9. Can you comment on how has information technology been used in this police Area to support ILP development or activities?

Reminder

Frontline officers might have low awareness of technology change. Might only be able to give a general impression.

10. Is there are particular organisational culture that sets this police Area apart? Can you describe that culture?

11. In general can you describe how open to innovation and change, new ideas and approaches would you say this police Area is? What are the reasons for this open or closed position?

Reminder

Has ILP spawned lesser innovations? Is this Police organisation continually innovative? If so how what examples are there? To what extent are existing practices only being embedded? What sort of innovation is this edict, through research, confluence of problems and solutions, stimulated by local government, professional, accrediting and auditing organisations or social learning? What are the roots of this Areas innovation?

12. Characteristics Age, Sex, Rank

13. Education qualifications

14. Career history and Career aspirations

15. Position in the Community
## Appendix H: Summary of Key Findings

### Table H1: Summary of key findings

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description of influence on innovation</th>
<th>Overall importance to innovation uptake*</th>
<th>Impact on innovation life cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to subordinate crime reduction goals</td>
<td>Promoted intelligence-led policing (ILP) and led to continuous innovation</td>
<td>S</td>
<td>Propelled innovation at early stages. Focus on crime reduction goals maintained the innovation process and led to continual innovation</td>
</tr>
<tr>
<td>Boundaries</td>
<td>More open boundaries supported police employing a range of strategies to address crime problems, encouraged movement away from investigative and reactive responses to more partner and community focused responses and a willingness to consider novel solutions</td>
<td>M</td>
<td>More open boundaries were not initially important to innovation uptake but were important to sustaining innovation as ILP matured. Open boundaries supported a broad approach to crime reduction</td>
</tr>
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<td>---------------------------------------------</td>
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</tr>
<tr>
<td>Formalisation, Management style and Innovativeness</td>
<td>The use of an informal and participative management style was important to innovation uptake. These factors were employed to create a local organisational environment which was receptive to both ILP and innovation that addressed broader homogenous problems faced by police</td>
<td>S</td>
<td>Developing the right local organisational environment was initially helpful but became more important as innovation developed and matured. Continual innovation could not be sustained without a supportive innovation friendly environment. Over time a ‘can do’ subculture emerged at mature innovation uptake sites</td>
</tr>
</tbody>
</table>
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<tr>
<td>Leadership</td>
<td>Highly influential. Leaders instilled confidence and built self belief in ILP amongst officers. Leaders coached and taught individual officers about ILP. Reaching a critical threshold of leaders at all rank levels in the organisation was critical to innovation. Failure to achieve this threshold facilitated the emergence of resistance to change. Overall the actions of leaders across the depth and breadth of the organisation was vital to innovation uptake</td>
<td>S</td>
<td>Leadership was critical to the innovation process. Entrepreneurial leaders took decisions to employ ILP innovation. Developing internal and external leadership networks sustained the innovation process. The courage of leaders to continue innovation was important</td>
</tr>
<tr>
<td>Management of change</td>
<td>The day to day changes made by managers to implement ILP were influential. Poorly communicated and executed change created opportunities for resistance to coalesce</td>
<td>M</td>
<td>Initial change management was important. As innovation matured officers became more comfortable with change</td>
</tr>
</tbody>
</table>

*ILP specific features*
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Centrality of Intelligence unit</td>
<td>Placing the Intelligence unit at the heart of operational and management practice was important to innovation uptake</td>
<td>S</td>
<td>It was important for the Intelligence unit to remain central to operational and management practice at all stages of innovation</td>
</tr>
<tr>
<td>Social acceptance of Intelligence unit</td>
<td>Establishing social acceptance for the Intelligence Unit was important to innovation</td>
<td>S</td>
<td>Maintaining the creditability of the Intelligence unit was important to innovation uptake. Where creditability was not maintained or could not be established this seriously undermined innovation uptake</td>
</tr>
<tr>
<td>Technical competence</td>
<td>Intelligence units needed to establish technical competence through quality products. Units also needed to show skill with IT systems and evidence of credible data quality</td>
<td>S</td>
<td>Technical competence needed to be established and maintained for ILP innovation to be maintained</td>
</tr>
</tbody>
</table>

*Environmental level*
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Local Government</td>
<td>Local politics were relatively uncomplicated. Positive relations supported innovation uptake. Local government a critical partner in sustaining ILP and supporting crime reduction</td>
<td>S</td>
<td>Important to maintain strong relations with Local Government. As innovation matured focused crime reduction partnerships supported the development of ILP. Crime reduction success created political capital for local politicians</td>
</tr>
<tr>
<td>General community relations</td>
<td>Positive general community relations necessary for ILP uptake. Poor relations likely to be a barrier to innovation and ferment opposition rather than positive relations actively assisting innovation</td>
<td>W</td>
<td>Important background factor through innovation stages. All sites reported positive general community relations</td>
</tr>
<tr>
<td>Input demand</td>
<td>Officers at weak uptake sites tended to view themselves as subject to greater external input demand</td>
<td>W</td>
<td>A consequence of innovation uptake appeared to be a reduction in perception of external input demand by officers. As ILP matured officers were subject to higher demands to perform proactive ILP tasks</td>
</tr>
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<td>Factor</td>
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</tr>
<tr>
<td>Environmental complexity stability and neighbourhood effects</td>
<td>ILP innovation prompted a weak trend for officers to view their environment as more stable and less complex. A somewhat stronger trend suggests officers at strong uptake sites were likely to be less subject to neighbourhood influences</td>
<td>W</td>
<td>The influence of environmental factors was more pronounced at the early stages of innovation uptake. As innovation matures and officers become busier with ILP tasks, the influence of environmental and neighbourhood factors dissipates</td>
</tr>
</tbody>
</table>

**Individual**

<table>
<thead>
<tr>
<th>Innovation knowledge</th>
<th>Knowledge strongly associated with ILP uptake. Knowledgeable officers were an outcome of deliberate strategies by managers</th>
<th>S</th>
<th>Knowledge was important at all stages of innovation. High levels of knowledge were evident at the early stages of innovation uptake and maintained through the innovation process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation commitment</td>
<td>Commitment strongly associated with innovation uptake. Commitment was an outcome of organisational level strategies</td>
<td>S</td>
<td>Officers at the most mature innovation uptake site were the most strongly committed to ILP. This suggests that for innovation to develop and continually for continual innovation to emerge commitment needs to be maintained and developed over time</td>
</tr>
</tbody>
</table>
### Appendix H: Summary of Key Findings

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<tbody>
<tr>
<td>Supervisor priorities</td>
<td>Important outcome of leadership behaviours at strong uptake sites. Officer belief that supervisors prioritised ILP supported innovation uptake</td>
<td>S</td>
<td>It is likely that officer belief that supervisors prioritise innovation remains important throughout the innovation process</td>
</tr>
<tr>
<td>Discretionary time</td>
<td>Willingness to commit discretionary time was important to innovation uptake. Willingness to commit discretionary time was an important precursor to actual behaviour</td>
<td>S</td>
<td>Willingness to commit discretionary time may not always translate into actual behaviour for a variety of reasons. Establishing and maintaining willingness to use discretionary time was important to innovation uptake</td>
</tr>
<tr>
<td>Innovation-related behaviours</td>
<td>A clear outcome of organisational strategies undertaken by managers and subsequent interactive processes. Clear separation in officer behaviour between strong and weak uptake sites</td>
<td>S</td>
<td>Pattern of higher levels of innovation related behaviours evident as innovation matured and developed at strong uptake sites</td>
</tr>
</tbody>
</table>

Note: Overall importance to innovation uptake: S = strong, M = moderate, W = weak.
References


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