

**Impact of e-commerce on speciality stores in categorised shopping centres**

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**Impact of e-commerce on speciality stores in categorised  
shopping centres**

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## **ABSTRACT**

The upsurge of online shopping usage in Australia is putting pressure on the shopping centres to remain competitive. Shopping centres need to differentiate themselves from online shopping by facilitating instant gratification, social interaction and shopping convenience. To do so, shopping centres may need to extend trading hours. However, retail trading hours in Australia are regulated. Therefore, this research aims to investigate the need for full deregulation of trading hours by investigating the frequency of consumers' leisure shopping activity during extended trading hours and its influence on the performance of the independent speciality stores within a shopping centre.

This research investigated the impact of online shopping on consumer in-store browsing behaviour and the performance of the independent speciality stores in different sized shopping centres. The main anchor tenants (e.g., Kmart, Myer) mostly draw consumers into the shopping centre, therefore independent specialty stores usually rely on consumers' in-store browsing behaviour in order to promote their products and services. In addition, browsing is an important facet of leisure shopping activity.

The literature on consumers' browsing behaviour in relation to the performance of independent speciality stores within a shopping centre is highly limited. Thus, there is a pressing need to undertake a comprehensive investigation of consumer in-store browsing behaviour to increase our understanding of the phenomenon. Furthermore, online shopping has the potential to have a negative impact on consumer browsing behaviour within a shopping centre especially during weekday late evening trading hours, largely because of consumers' employment status. Therefore, this research also focused on weekday late evening trading hours.

To facilitate the investigation of the impact of e-commerce on speciality stores in categorised shopping centres, this research was underpinned by four distinct fields of literature: 1) consumer browsing behaviour; 2) retail trading hours; 3) The Huff Gravity Model; and 4) The Technology Acceptance Model. A single case study was employed to examine the impact of e-commerce on independent speciality stores. The single case

study was supported by a mixed method research approach that included two focus groups discussions, one personal interview with one shopping centre manager and a questionnaire survey of 287 respondents.

This research found consumers were usually goal oriented during weekday late evening trading hours and they would usually engage in browsing in-stores only when they require customer assistance. This research was also able to utilise the causal relationship between customer assistance and independent speciality stores to determine consumers' demand for shopping in independent speciality stores during extended trading hours. Moreover, consumers' seeking customer assistance are likely to obviate the use of online shopping. Overall, this research suggests that the independent speciality stores are unlikely to experience an increase in sales or attract more customers by extending the trading hours.

This research offers valuable insights into the potential opportunities of combining both the physical and online stores for independent small and medium enterprise retailers. For example, in order to succeed in combining both the physical and online store, the provision of short-term leasing in shopping centres is essential. The combination of short-term leasing in shopping centres and efficiency in e-commerce can enhance the capability of independent small and medium enterprise retailers to successfully trade beyond a particular trade area or geographical location. It is essential for small and medium enterprise retailers to venture beyond the trade area of the shopping centre in order to enhance the chances of surviving for a long term period. The main reason is that consumers' shopping frequency at independent speciality stores within a shopping centre is irregular as consumers usually purchase speciality products every once in a while.

The results of this study are a validated instrument to measure the impact of online shopping on shopping centre patronage and in-store browsing behaviour during extended trading hours. Furthermore, the results also indicate a successful combination of the four distinct fields of literature: 1) consumer browsing behaviour; 2) retail trading hours; 3) the Huff Gravity Model; and 5) the Technology Acceptance Model. This theoretical contribution has resulted in the combination of the Huff Gravity Model and the Technology Acceptance Model for the first time. Including the theoretical ideas/concepts of consumer browsing behaviour, choice overload and

customer assistance during restricted trading hours in the study has allowed a novel contribution of combining Huff's Gravity Model and the Technology Acceptance Model to study consumers' leisure shopping activity/experience during extended trading hours. The theoretical contribution of this research also enables shopping centres and independent speciality stores to determine the need for increasing the frequency of extended trading hours.

This study makes an important step in understanding the demand for independent speciality stores in categorised shopping centres during the extended trading hours. Moreover, by addressing the gap in the current literature pertaining to consumers' in-store browsing behaviour and by identifying the current lack of understanding of the performance of independent speciality stores in categorised shopping centres, the study provides pathways for shopping centre development that will be better informed in the future.

## STATEMENT OF ORIGINALITY

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge, this thesis does not contain any material previously published or written by another person except where due reference is made in the thesis itself.



(Signed) \_\_\_\_\_

Vikram Khangembam

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## **CHAPTER 1 INTRODUCTION TO THE RESEARCH**

### **1.1 Introduction**

A shopping centre usually consists of main anchor tenants and various retailers occupying speciality stores. The main anchor tenants are those retailers who have high brand equity, which is defined as a strong positive association with a brand by the consumer, commanding high brand loyalty (Solomon, 2007). Therefore, the main anchor tenants are known as traffic attractors due to high brand equity amongst the local consumers, and this draws large numbers of customers into the shopping centre (Ibrahim and Galven, 2007).

On the other hand, the speciality store retailers are usually the non-anchor tenants with low brand equity who are also known as traffic users, because they attempt to capture the visitors drawn by the main anchor tenants (Ibrahim and Galven, 2007). A speciality store offers a deep assortment within a narrow range of goods (Brown, Taran, and Friedman, 2011). The key factor attracting consumers to speciality stores is the depth of knowledge and expertise of staff and the in-depth assortment in a product line (Brown et al., 2011).

At present, shopping centres are faced with numerous challenges. Firstly, there is a constant need to update and re-engage consumers in order to attract customers. Secondly, changing consumer lifestyles that are largely driven by the socio-economic environment are influencing the frequency of visits and amounts spent within shopping centres. Thirdly, flexibility in the trading hours and significant advances in technology, including online shopping, are providing increased competition (Ibrahim and Galven, 2007; Pitt and Musa, 2009). Therefore, the current study focuses on the issues of retail trading hours and the ways in which e-commerce is influencing consumers' shopping behaviour in shopping centres.

Carter (2009) described shopping centres as the most successful form of physical retail establishment, providing convenience, comfort, leisure and a secure shopping environment for consumers and retailers under one roof. One of the key advantages for retailers leasing a store in a shopping centre is the reduced cost and effort in

marketing products and services (Pitt and Musa, 2009). Therefore, the Shopping Centre Council of Australia (2011) asserts that shopping centres facilitate retailers, especially SME retailers, to become successful in establishing their businesses. However, a shopping environment influenced by restricted retail trading hours and increased online shopping usage may challenge the advantages (i.e., reduced cost and effort in marketing products and services) of SME retailers being located within a shopping centre (The Productivity Commission, November 2011).

Contrasting opinions of urban planners and consumer behaviour researchers exist relating to the advantages of regulation of retail trading hours on SME retailers. Urban planning researchers have empirically demonstrated that deregulation of trading hours negatively affects the competitiveness of SME retailers and small size shopping centres (Baker, 2002; Baker and Wood, 2010). They found that larger-sized shopping centres attract most consumers during extended trading hours, thus reducing the frequency of shopping visits to smaller-sized shopping centres. This results in more losses than profits during extended trading hours for the majority of SME retailers due to an increase in the overhead costs, such as penalty rates payable to staff for working overtime (Gradus, 1996; Wenzel, 2011).

However, consumer behaviour researchers have indicated that time-constrained shoppers usually favour stores with large product assortment and well-known brand outlets because of choice overload (Goodman and Malkoc, 2012). Within the shopping centre, there exist well-known brand outlets and department stores with large product assortment, all competing against the SME retailers. Chan (2015) indicated the 'regret' factor as the main reason consumers favour stores with large product assortments and well-known brand outlets during time-constrained shopping activities.

Over the years, the increased workload and higher participation of women in the workforce has called for flexibility in the regulation of the trading hours to facilitate shopping convenience (Huddleston and Huddleston, 2010). In Australia, state governments have allowed some flexibility in retail trading hours policies by permitting supermarket stores, department stores that carry discounts in their products (e.g., Kmart) and certain speciality stores to stay open during late evening hours on weekdays (Retail First, n.d.; Business Queensland, 2017). Yet the Australian

Productivity Commission (November 2011) and SafeWork (2013) reports indicate that most speciality stores run by small and medium enterprise (SME) retailers prefer shorter trading hours, due to the high cost of operation. However, shopping centres in the suburbs uniformly encourage and contractually require all speciality stores to stay open for longer hours at least for one day during weekdays (Retail First, n.d.; Westfield, n.d.). This is often mandated in retail leasing contracts, which signatories of leased space within shopping centres are legally obliged to adhere to.

The argument supporting the need for extended retail trading hours is that the shorter trading hours of the speciality stores are likely to have a negative effect on consumers' shopping convenience (e.g., instant gratification, customer assistance) and in-store browsing behaviour. Studies by Jarboe and McDaniel (1987) and Xia (2010) have identified consumers' browsing behaviour in a shopping centre to be highly significant to the success of speciality stores. The reason is that SME retailers often rely on those consumers driven by the main anchor tenants (i.e., Kmart, Myer etc.) because of their low brand equity. Therefore, those shopping centres that are able to induce consumers to browse within the centre are likely to help the SME retailers in promoting their products and services. Although the facilitation of shopping convenience (i.e., browsing and/or purchasing) for consumers through online shopping is a heavily researched area, there exist knowledge gaps, as few researchers have considered the importance of consumer browsing behaviour on the survival of SME retailers in shopping centres.

Today, online shopping is providing an alternative option for time-poor shoppers, enabling them to browse and/or purchase products and services through the internet. Australia is one of the top ten countries in the world in the e-commerce market (Inside Retail, April 2015), and according to the Australian Bureau of Statistics (February 2014), 83% of the total population has access to the internet. Australia has observed a substantial rise in domestic online sales, indicating that various retailers, including traditional 'bricks and mortar' retailers, are investing in e-commerce platforms such as online shopping and social media (Australian Communications and Media Authority, 2011).

Furthermore, restricted retail trading hours may influence time poor-consumers to use e-commerce, and this in turn may obviate the need for browsing in stores. Generally, the Australian population perceives they have limited time for shopping activities (Reimers and Clulow, 2009), thus restricted retail trading hours may drive them to seek information online and visit shopping centres with pre-determined purchase objectives. This would be certain for those consumers seeking instant gratification from their shopping purchases. In such circumstances, consumers tend to source information about the products offered in the physical and online stores through e-commerce platforms, based on the price competitiveness offered by various retailers or familiarity with the brand/retailers (Liu, Hsieh, Lo, and Hwang, 2017; Valentine and Powers, 2013; Wan, Nakayama, and Sutcliffe, 2012) . Hence, customers' choice of SME retailers is likely to be low when consumers compare products online prior to purchasing in a physical store. Additionally, a previous study has shown that frequent use of online shopping influences consumers to reduce their time spent when physically visiting a store (Weltevreden, 2007). Hence, there is a probability that the combination of restricted retail trading hours and the use of online shopping may hinder SME retailers in shopping centres in earning profits. Consequently, SME retailers may not survive as they have limited resources (i.e., financial capability) to operate their businesses.

Therefore, it is timely that this thesis examines the relevance of increasing the frequency of extended trading hours during weekdays by investigating consumers' shopping behaviour in these circumstances. The investigation of consumers' shopping behaviour was focused on shopping centre patronage, frequency of shopping centre visits and consumers' in-store browsing behaviour during extended trading hours. Furthermore, there is limited research specifically examining consumers' in-store browsing behaviour within shopping centres during extended trading hours (Bloch and Richins, 1983; Jarboe and McDaniel, 1987; Nsairi, 2012; Xia, 2010).

The increased growth in e-commerce also necessitates an in-depth understanding of consumers' shopping choices and the influence this is potentially having on in-store browsing behaviour. Therefore, the current study examines the effect of e-commerce on browsing activities and patterns across categorised shopping centres during extended trading hours.

Shopping centres are generally defined and classified by their size and products sold (Pitt and Musa, 2009). In the current study, the definition of the different categories of shopping centres are adopted from the Shopping Centre Council of Australia (SCCA) guidelines which use 'gross lettable area' (GLA) to define and classify a shopping centre (URBIS, 2015). Regional shopping centres are usually the biggest shopping centres in terms of size and product offerings, exceeding GLA of 50,000m<sup>2</sup> (URBIS, 2015). Sub-regionals are mid-size shopping centres with a maximum GLA of 50,000m<sup>2</sup> and neighbourhood shopping centres are the smallest, with a maximum GLA of 10,000m<sup>2</sup> (Abrudan, 2011; URBIS, 2015). Neighbourhood shopping centres predominantly cater for the local community with convenience goods (e.g., groceries, pharmacy products, etc.) and are usually located in close proximity to consumers' residences (Guy, 1998). Based on the literature review, the different categories of shopping centres considered for this research are regional, sub-regional and neighbourhood shopping centres. The main reason for an investigation of the impact of e-commerce only on these three categories of shopping centres is because they hold 83% of all speciality stores in the Australian shopping centre industry (URBIS, 2015).

Limited research has specifically examined the impact of e-commerce on speciality stores across different categories of shopping centres. From a strategic and operational perspective, an in-depth understanding of this knowledge would be an incredibly powerful tool for shopping centre management. An understanding of this impact can provide evidence to retail tenants of the best strategies to attract consumers and entice them to browse, once they are within the shopping centre. Additionally, learning what influences shoppers' browsing activity, identifying their needs and using these needs as targets, can help speciality stores, specifically SME retailers, to achieve a competitive advantage. The research draws on theories derived from spatial interaction models (the Huff Gravity Model and RASTT Model), the Technology Acceptance Model (TAM), retail trading hours and consumers' browsing behaviour.

## **1.2 Research aim, objectives, and questions**

The aim of this thesis is to understand the impact of e-commerce on consumers' shopping behaviour during extended retail trading hours and its implication for speciality stores in shopping centres. Therefore, the objectives of this thesis are to:

- i. Investigate the effect of restricted retail trading hours on consumers' in-store browsing behaviour within shopping centres.
- ii. Investigate the probability of using e-commerce due to shopping inconvenience caused by restricted retail trading hours.
- iii. Investigate the interaction of Huff's Gravity Model and the Technology Acceptance Model (TAM) in predicting consumers' choice of shopping centre and in-store browsing behaviour during extended retail trading hours.

Specifically, the research question underpinning this study is: *What is the socio-economic impact of e-commerce on speciality stores in categorised shopping centres?*

The other research questions of this study are:

1. Does consumers' experience any choice overload and inconvenience in seeking customer assistance when browsing during restricted retail trading hours?
2. What is the probability of using e-commerce to obviate the need for customer assistance in store and reduce choice overload?
3. Does a pre-determined purchasing objective enhance the visibility of independent speciality stores when browsing and/or shopping in a regional shopping centre?
4. Does the usage of e-commerce have any significant impact on consumers' preference for shopping on days offering extended retail trading hours?

## **1.3 Research scope and limitations**

1. Scope of this research

This thesis adopts a pragmatic research approach to investigate the research questions. A pragmatic research approach employs both qualitative and quantitative research methods to draw conclusions for a given phenomenon. The mixed method research approach is considered to offset the weakness inherent in using each

approach by itself (Stewart, Shamdasani, and Rook, 2009). Mixed methods are especially suitable for the current research because a single case study was carried out. Therefore, mixed methods enabled further insight from a variety of data sources and methods to be utilised within the single case study. A mixed method approach also enhances the reliability of the findings and enables some generalisability of the results from a single case study (Flyvbjerg, 2006). Hence, a mixed methods approach was used because the intention was to perform a methodological triangulation for a given phenomenon.

There are a number of important contributions made by this thesis. Firstly, the benefit for shopping centre management will be in having independent research that can be used to attract and retain prospective tenants to their centres. Secondly, speciality store retailers will also be able to utilise this research to gain an understanding of consumers' browsing behaviour, the important role this plays in the economic aspect of sales and service of the speciality stores, and how retailers can adapt these strategies to gain economic advantage. Thirdly, policy-makers will be provided with information relating to the need to increase the frequency of extended retail trading hours. Fourthly, shopping centre administrators and speciality retailers will be guided on what should be emphasised to improve sales and consumers' browsing activity. Finally, the research integrates four distinct areas of literature: retail trading hours; spatial interaction theory; consumers' browsing behaviour; and the Technology Acceptance Model (TAM), making a significant contribution to an understanding of consumers' shopping behaviour during weekday extended trading hours. This is achieved through a framework of understanding the role of e-commerce, restricted trading hours and choice overload on consumers' in-store browsing behaviour and shopping centre patronage during extended trading hours. As a result, this research fills a gap in the existing body of knowledge. Furthermore, this research is crucial not only for its contribution to the body of knowledge concerning consumers' shopping behaviour, but it also has significance for shopping centre industry management in understanding browsing behaviour during extended trading hours.

## 2. Limitations of this research

A number of limitations were experienced when conducting this research. These limitations include data collection, the location and the single case study.

### *Data collection*

This research adopted a mall intercept survey to enhance accuracy when capturing the shopping and/or in-store browsing experience of consumers. Therefore, in order to carry out the questionnaire survey, approval was required from shopping centre authorities. This researcher managed to obtain approval from just one shopping centre manager. As a result, all the responses in the survey were derived from consumers visiting a sub-regional shopping centre. In addressing the limitation of not being able to conduct surveys in regional and neighbourhood shopping centres, this research calculated the trade area of the sub-regional shopping centre at 3km radius and recruited only those survey and focus group participants who resided within this trade area. According to Yang (2002), residents tend to have high spatial dependence within a 3km range irrespective of their mode of transportation (i.e., walking, cycling, private car etc.). Spatial dependence is “the propensity for nearby locations to influence each other and to possess similar attributes” (Goodchild, 1992, p. 33). Additionally, located within the 3km radius of the sub-regional shopping centre trade area, are the three categories of shopping centres: regional, sub-regional and neighbourhood shopping centres, which the researcher intended to investigate in the current study. In other words, holding the survey at the sub-regional shopping centre would suffice because consumers are likely to have visited the three categories of shopping centres at some point in time, as they are all located within the 3km radius. The sampling technique and participants’ recruitment process are explained in-depth in Chapter 3 Methodology. However, the researcher acknowledges that there may be some variation in the accuracy of the responses in relation to shopping and/or in-store browsing behaviour in regional and neighbourhood shopping centres.

### *The Location*

The location for the case study was determined according to the approval received from the shopping centre management to conduct the mall intercept survey. The shopping behaviour of the consumers in this research was solely focused within the

sub-regional shopping centre trade area. While respondents were given the opportunity to indicate whether they have a preferred store or centre located away from the sub-regional shopping centre trade area for browsing for speciality products, this research does not measure or predict consumers' behaviour at those destinations. Therefore, the results of this study do not indicate the consequences of the shopping trips made by the residents of the sub-regional shopping centre trade area to the Central Business District (CBD) or to other locations during extended trading hours. Additionally, this research does not take into account the shopping activities of tourists.

#### *Single case study*

This research employed a single case study to enable the researcher to collect data while acknowledging the time and cost constraints in order to achieve the objectives of this research. Every endeavour has been made in the research design, indicated in Chapter 3, to address issues of generalisability. However, this researcher also acknowledges that cultural factors and differences in the policies relating to extended trading hours in different states of Australia may show some variation in the responses of the survey participants. For example, Asian consumers may show more of a preference to shop during extended trading hours than Australians. In the current study, the culture factor is quite diverse with 54% of people of Australasian and 31% of Asian ethnicity residing within the sub-regional shopping centre trade area (Australian Bureau of Statistics, 2016b). Therefore, the results are evidence of the socio-economic impact of e-commerce on speciality stores in categorised shopping centres located within the sub-regional shopping centre trade area. Additionally, this research was focused on extended trading hours during weekdays, which may show some variation in comparison to consumers' shopping behaviour during weekends, largely because of their employment status.

#### **1.4 Definition of terms**

Since terminology may differ in the way it is interpreted (Malhotra, 2010), this section defines the various terminology used in this thesis.

1. *Hedonic shopping or recreational shopping* is the shopping experience that is derived from the pleasure of shopping and does not have a specific purpose (Hirschman and Holbrook, 1982; Langrehr, 1991).
2. *Utilitarian shopping or goal oriented shopping* is the shopping experience that is derived by having a specific purpose in making a shopping trip, seeking to purchase a product in minimum time in order to satisfy a goal (Babin, Darden, and Griffin, 1994).
3. *Impulse purchase* is a sudden decision made by the consumer based on their affection towards a product. Various researchers consider this to be an unintended, unreflective and immediate purchase (Rook, 1987; Rook and Fisher, 1995; Verplanken and Herabadi, 2001).
4. *Brand equity* is a strong positive association with a brand by a consumer, commanding high brand loyalty (Solomon, 2007).
5. *Department store* is segmented into various departments such as apparel, homewares and cosmetics. A department store may have variety of goods but a single tenant leases the store. This retail tenant occupies more than 4,645 m<sup>2</sup> of store space (International Council of Shopping Centres, n.d.). Department stores focus more on higher order retailing (e.g., apparel and furniture) than day to day convenience shopping (International Council of Shopping Centres, n.d.). The department stores in Australia are Myer, David Jones, etc.
6. *Discount department stores* typically occupy store space between 930–10,000 m<sup>2</sup> and have discounts on the products they offer (International Council of Shopping Centres, n.d.; URBIS, 2015). Examples of discount department stores in Australia are K-mart, Target and Big W.
7. *Supermarket store* is dedicated to food and groceries and holds store space between 930–4,645 m<sup>2</sup> (International Council of Shopping Centres, n.d.). Supermarkets in Australia are Coles, Woolworths, IGA, Aldi, etc.
8. *Speciality store* in a shopping centre, in Australia, is defined as a store “less than 400 m<sup>2</sup>” (URBIS, 2015, p. 4). Furthermore, a speciality store offers a deep assortment within a narrow range of goods (Brown et al., 2011).
9. *Independent small and medium enterprise (SME)* in this research refers only to those retailers who employ 0-4 staff members (Australian Bureau of Statistics, 2018). The terms ‘independent small and medium enterprise (SME)’ and

'independent speciality store retailer' are interchangeably used in the current study.

10. A *consumer* is an individual who buys products and services for his/her own consumption (Parliament of Australia, n.d.). The terms 'consumers' and 'shoppers' are interchangeably used in the current study.
11. *Speciality products* are defined as those "based on traditional craftsmanship and are characterised by small scale batch production" (Kupiec and Revell, 2001, p. 7).
12. *Other centres* refer to all other categories of shopping centres excluding regional, sub-regional and neighbourhood shopping centres that may or may not be located within a sub-regional shopping centre trade area. Furthermore, it is not possible to clearly classify every shopping centre because shopping centres keep evolving and new formats are created in order to differentiate and cater to a particular group or a niche market (e.g., factory outlet centres, power house centres, etc.) (Abrudan, 2011).
13. *One-stop shopping* means facilitating shoppers with all available shopping options under one roof that can also cater for any uncertain needs of the shopper (Kaufman, 1996).

## **1.5 Outline of the thesis**

Chapter 1 provides the background and objectives of the research, the scope of the current research and the research questions. Chapter 2 reviews the literature in the field of retail trading hours; introduces Spatial Interaction Theory; consumer browsing behaviour; and the Technology Acceptance Model (TAM). A review of the current research within the four distinct fields of literature revealed that there is a lack of congruity in the performance of SME retailers within a shopping centre which has the provision of extended retail trading hours. The chapter further identifies the various socioeconomic consequences of consumer in-store browsing behaviour during restricted trading hours such as choice overload and inconvenience in seeking customer assistance. The literature review concludes that researchers are largely focused on overall sales volume in measuring the performance of shopping centres and that they generally disregard the importance of consumers' browsing behaviour on the performance of the shopping centres. Finally, the four distinct fields of

literature are applied in order to create a conceptual framework that guides the investigation of the impact of e-commerce on consumer in-store browsing behaviour and shopping centre patronage during extended trading hours.

Chapter 3 presents the research methodology, explaining and justifying the data collection methods, the sampling method, the questionnaire design and finally the data analysis methods used in this study. A single case study using concurrent mixed method research approaches was adopted to achieve the objectives of this study. The qualitative data collection process comprised two focus group discussions and a personal interview with one of the shopping centre managers. The questionnaire design for the focus groups and personal interview employed semi structured open-ended questions. The quantitative data collection process employed stratified random sampling and a computer assisted mall intercept survey. The survey used close-ended questions to record the responses of the participants. This chapter also describes the various methodological limitations of the research.

Chapters 4 and 5 present the findings of the qualitative and quantitative analysis. Chapter 4 reports the findings of the qualitative analysis in themes based on the conceptual framework of this research, derived through the literature review. The qualitative analysis explores the positive and negative aspects of shopping centres and e-commerce on consumers' shopping behaviour during extended trading hours, with a focus on independent small and medium enterprise (SME) retailers. Chapter 5 examines the validity of the conceptual framework of this research using quantitative data. The latent variables models presented at the conclusion of Chapter 2 are the measurable variables for the conceptual framework that was analysed by confirmatory factor analysis (CFA).

Chapter 6 presents the discussion and conclusion of this thesis. This chapter addresses the research objectives outlined in Chapter 1 by discussing the results of this study and their implication for consumers, SME retailers and shopping centres within the conceptual framework, as presented in the conclusion of Chapter 2. This chapter also presents the theoretical contribution that the thesis makes and defines future areas for further research.

## **Chapter 2 Literature Review**

### **2.1 Introduction**

The purpose of this chapter is to clarify the research problem through a literature review, develop a conceptual framework to examine the research problem and present a justification for this research. The chapter is divided into eight sections. Section 2.1 presents the structure of Chapter 2.

Section 2.2 presents an overview of the current research into small and medium enterprise (SME) retailers and shopping centres. The success of both SME retailers and shopping centres are interdependent. SME retailers require suitable infrastructure to promote their products and services, while shopping centres require retailers that align with the centre orientation in order to maintain attractiveness.

Section 2.3 reviews spatial interaction theory (SIT). Spatial interaction theory was introduced in the late 1920s and has been used to investigate consumers' choice of shopping location. Spatial interaction theory (i.e., the Huff Gravity model) has been found to be highly accurate in determining consumer shopping centre patronage within the intra-urban shopping environment. However, the precision of this theory could not be related to the performance of individual stores within a shopping centre (Dawson, 2012). Therefore, Section 6 explores the concept of integrating consumers' browsing behaviour factor with SIT (i.e., the Huff Gravity Model).

Section 2.4 reviews the Technology Acceptance Model (TAM) that is used to measure consumers' usage of e-commerce. The Technology Acceptance Model was introduced in the late 1980s and has been widely used to investigate consumers' online shopping behaviour. Yet, TAM has limited documented application, specifically in determining the effect of online shopping usage on shopping centre patronage during extended trading hours. This section also examines the concept of trust in relation to online shopping and the integration of trust within TAM.

A conceptual framework is presented in Section 2.5 illustrating the relationships between the four distinct fields of literature: consumer in-store browsing behaviour, TAM, retail trading hours and Huff's Gravity Model relevant to this study. In this thesis,

consumers' in-store browsing behaviour was selected as the dependent variable in order to determine the performance of SME retailers within a shopping centre. Further, this section elaborates choice overload which is a negative aspect of consumer browsing behaviour. The concept of using customer assistance factor/variable to determine consumers' demand for shopping at speciality stores during extended trading hours was also discussed. This section also provides the necessary background for the current study in investigating consumers' shopping behaviour during extended trading hours.

Section 2.6 examines the impact of restricted trading hours on consumers, retailers and shopping centres. One of the main aims of restricted trading hours is to disperse the frequency of shopping visits to different shopping centres by reinforcing the proximity factor (Baker, 2002). This has social consequences for consumers and economic consequences for retailers and shopping centres, as is evidenced in this section.

Section 2.7 summarises the growth of e-commerce and its impact on the Australian retail environment. This section also discusses the progress of the new economy that is driven by globalisation and the revolution in information and communication technology.

## **2.2 An overview of the Australian retail environment**

According to the Australian Retailers Association (2014) the retail sector is one of the biggest private employers in the Australian economy, comprising approximately 1.2 million employees. The largest proportion of employees in this sector work for small and medium enterprise (SME) businesses, which own approximately 95% of the total retail businesses in Australia. However, the Australian Retailers Association (2014) reported that SME retailers were struggling to sustain their competitiveness. This is seen as being mainly due to changes in Australia's retail environment, where globalisation and technological advancement have caused rapid changes to business policies and practices.

According to the Australian Bureau of Statistics (2018) the number of active retail businesses recorded in Australia during the financial year 2013/14 was 135,233. This

number declined to 131,163 active businesses in 2016/17. The number of businesses that ceased to exist within the 2013/14 to 2016/17 period was highest for those SME's with no employees (Australian Small Business and Family Enterprise Ombudsman, 2016). Furthermore, the Australian Bureau of Statistics (2018) indicated that only 50.7% of SMEs with no employees and 62% of SMEs with 1-4 employees managed to continue their businesses over the 2013/14 to 2016/17 period. In contrast, 78.6% of businesses that had at least 200 employees managed to continue to operate over the 2013/14 to 2016/17 period. Thus, the survival rate of small retailers was lower in comparison to that of larger retailers.

Megicks and Warnaby (2008) suggest that limited financial capability, and more importantly, lack of marketing skills are the main reasons why SME retailers fail in their businesses. The Australian Retailers Association (2014) support this, claiming that some Australian SMEs, including retailers, experience difficulties in accessing finance from financial institutions and governments for starting a business. Meanwhile, Hutchinson, Donnell, Gilmore, and Reid (2015) also conclude that SME retailers often depend on their own intuition for decision making and do not seek expert advice. Combined, the limited opportunity to accessing appropriate finance and failure of SME retailers to seek expert advice heightens the risk of failure from the commencement of business (Australian Retailers Association, 2014; Megicks and Warnaby, 2008). Hence, the likelihood of SME retailers functioning independently and succeeding without these quality inputs is usually low.

Runyan and Droge (2008) suggested that SME retailers would increase their chances of surviving through a business partnership with a complementary organisation rather than working independently. For example, being located in a well-organised shopping centre is likely to be more advantageous for SME retailers, as the centre management can assist with issues related to developing a marketing strategy to increase consumer visit frequency and opportunities for mutual benefit.

A report published by the Shopping Centre Council of Australia (2011) claimed that shopping centres were important for newly established retailers in Australia as they reduce the risk of capital investment relating to setting up a business. The report also indicated that the performance of Australian shopping centres in terms of sales per metre<sup>2</sup> was high, but these shopping centres only comprised 35% of the total retail

stores in Australia. Furthermore, shopping centres were observed to have a very low average vacancy rate (i.e., within 1%) despite facing economic turbulence (for example, the global financial crisis). In light of the success of shopping centres and the contrasting struggles of SME retailers, the current research investigates the impact of e-commerce on the performance of SME retailers in different categories of shopping centres. The rise of online shopping is considered to be a potential cause for the decline of SME retailers (Australia Retailers Association, 2014; Business South Australia, 2018). Therefore, section 2.3 reviews some of the theories and studies that have attempted to predict consumer shopping behaviour.

### **2.3 Spatial interaction theory**

Spatial interaction theory was derived from Reilly's (1929) work on the law of retail gravitation, which suggested that a consumer will choose a particular shopping centre over another based on the attractiveness of the centre (i.e., measured by the size of the centre) and the distance to the centre (McGoldrick and Thompson, 1992). There were two main reasons for using SIT in the current study. Firstly, SIT (i.e., the Gravity model) is suitable for analysing consumers' spatial behaviour within an intra-urban retail environment (Dawson, 2012; Wee and Pearce, 2015). Secondly, various researchers have contributed to the development of Spatial Interaction Theory (SIT) and have sought to create a more realistic model of consumer spatial behaviour (McGoldrick and Thompson, 1992). The most significant contribution in SIT was made by the Huff Gravity Model in predicting shoppers' patronage decisions (Wee and Pearce, 2015). The 'Huff Gravity Model' is therefore a primary focus in the current research and is used to explain SIT.

Shepherd and Thomas (1980) considered Reilly's (1929) law of retail gravitation to be inappropriately deterministic in the intra-urban context, as the consumer would realistically have more shopping options than the two-centre case used in the law of retail gravitation. This limitation of the law was further addressed by Huff, who additionally considered the existing competition between shopping centres in the intra-urban context (Huff, 1964). For example, The Huff model was used to examine the probability that a consumer will decide to shop at a particular shopping centre, given the presence of competing centres (Huff, 1964).

Figure 1: Huff's basic Gravity Model

$$P_{ij} = \frac{\frac{S_j}{T_{ij}^{\alpha}}}{\sum_{j=1}^n \frac{S_j}{T_{ij}^{\alpha}}}$$

Source: (Huff, 1964, p. 36)

$P_{ij}$  = the probability of a consumer at a given point of origin 'i' travelling to a given shopping centre 'j';

$S_j$  = the square footage of selling space devoted to the sale of a particular class of goods by shopping centre 'j';

$T_{ij}$  = the travel time or distance or costs involved in getting from a consumer's travel base to shopping centre 'j';

$\alpha$  = a parameter which is to be estimated empirically to reflect the effect of travel time or distance on various kinds of shopping trips;

$n$  = is the number of shopping centres under consideration (Huff, 1964, p. 36).

The three assumed determinants of the Huff Gravity Model: the size of the shopping centre, distance and the impact of alternative centres in the retail environment, are still relevant and significant in determining shopping behaviour (Wee and Pearce, 2015). The Huff model is considered the closest specification for modern theory-based approaches in explaining shopping behaviour and the role of the shopping centre (Wee and Pearce, 2015). The Huff model assumes that consumers differentiate between competing shopping centres based on their attractiveness and distance (McGoldrick and Thompson, 1992). Furthermore, it examines consumer choice of a shopping centre at an aggregate level and does not consider individual behaviour as the level of analysis (McGoldrick and Thompson, 1992).

The behavioural assumptions of the gravity model are considered to be an important tool for decision makers in discerning suitable locations for shopping centres within cities (Beiró et al., 2018; Dawson, 2012). Therefore, researchers studying consumers'

shopping preferences have largely accepted the Huff Gravity Model and as such, it forms part of the current research to analyse consumers' choice of shopping centre.

Although the Huff model has provided reasonably accurate explanations of shoppers' patronage decisions regarding a particular shopping centre or a shopping 'precinct', it is not as accurate when explaining patrons' decisions to visit individual stores (McGoldrick and Thompson, 1992). In other words, the three assumed determinants of the Huff model are reasonably accurate in estimating or predicting the overall performance of the shopping centre but the prediction may not be relevant to some small retailers (i.e., the performance of independent speciality stores) within the shopping centre.

One of the key strengths of the gravity model is that it is flexible and can disaggregate the performance of the shopping centre (Dawson, 2012; Thomas, 1976). The gravity model can integrate the behavioural dynamics of shopping interactions in order to determine the performance of the speciality stores within a shopping centre (Dawson, 2012; Thomas, 1976). Therefore, in the current research, in order to understand the performance of speciality stores in categorised shopping centres, consumers' browsing behaviour within the shopping centre was captured as the dependent variable from which conclusions can be drawn. Jarboe and McDaniel (1987) reported that consumers' browsing behaviour was the key factor influencing the performance of speciality stores in a shopping centre. The reason is that the speciality stores usually have low *brand equity*<sup>1</sup> and their success is mainly dependent on the browsing behaviour of consumers who are drawn into the shopping centre by the main anchor tenants (i.e., Kmart, Myer etc.). Therefore, as Jarboe and McDaniel (1987, p. 46) noted "without these browsers, who frequently become buyers, many speciality stores would be forced to permanently close their doors".

The current study measures the only dependent variable (consumers' browsing behaviour) by consumers' perceived overall time spent browsing in-store during recreational and goal oriented (with the intention to purchase) shopping visits. In the intra-urban retail environment, Warnes and Daniels (1979) observed that consumers'

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<sup>1</sup> *Brand equity* is a strong positive association with a brand by the consumer and commands high brand loyalty (Solomon, 2007).

shopping behaviour was significantly influenced by the temporal factor and the distance of the shopping trip. Therefore, Thill and Thomas (1987) suggested that combining both spatial and temporal aspects would increase accuracy in analysing consumers' spatial behaviour.

Hence, integration of both spatial and temporal aspects, Baker (1985) has applied the two factors in determining shopping centre patronage and consumer movement. However, the scope of the Retail Aggregate Space-Time Trip (RASTT) model developed by Baker (1985) was limited to only 'when', 'where' and 'how often' shopping is undertaken (Baker, 2002).

The RASTT model is "constructed around a differential equation of spatial and temporal operators, where space is partially differentiated once and time twice" (Baker and Wood, 2012, p.161). Unlike the Huff's gravity model, the theory for this model is based on the knowledge derived primarily from sensory experiences which can be verified (Baker and Wood, 2012).

The importance of the RASTT model is the inclusion of the time dimension in understanding consumer spatial behaviour. The RASTT model uses trip distance, shopping frequency, retail floor space and length of trading period per week as variables to examine consumer shopping behaviour (Baker, 2002). Baker (1997) found that the length of trading period have significant influence on the size of and distance to, the shopping centre. He found consumers were more likely to travel further distance and choose larger-sized shopping centre as the length of trading period was increased. The RASTT model states that the temporal factors affect every individual regardless of their socio-economic status (Baker, 2006). Hence, shoppers visiting a particular shopping centre are deemed to be affected if the centre is closed at that moment (Baker and Wood, 2012). Therefore, trading hours of the shopping centre is an important temporal factor influencing consumers' spatial behaviour.

Additionally, according to Baker (2006), the extension or restriction of the shopping centre's trading hours is considered to have significant impact on online shopping. For example, a shopper travelling by a car will have much more spatial and temporal shopping opportunities than an individual travelling by public transport (Baker and Wood, 2012). The same can be applied for e-commerce users and non-users. In other

words, e-commerce users have the opportunity to maximise their shopping activity as they can determine their shopping destination by gathering information online, including trading hours, product price, product characteristics, availability of product in-store and parking spaces in order to fit their shopping activities within the trading hours of the shopping centre. Hence, usage of e-commerce can influence shopping centre patronage and consumers in-store browsing time.

Klein and Ford (2003) articulated that online shopping efficiency is influenced by the cost of the information search, especially with regards to time cost. Therefore, consumers select an online shopping mode due to reduced time burdens. Weltevreden (2007) also found frequent online consumers (i.e., both browsers and shoppers) were minimising their time when shopping in-store, more so than infrequent online consumers. Therefore, the current study suggests that the investigation of consumers' choice of shopping centre and in-store browsing behaviour needs to combine the aspects of spatial, temporal (trading hours) and usage of e-commerce. Section 2.4 reviews the theoretical model that is used to determine consumer's usage of technology, justifying the adoption of this theoretical model within this study.

#### **2.4 The Technology Acceptance Model (TAM)**

Davis (1989) created the Technology Acceptance Model (TAM) as a conceptual framework for measuring the user acceptance of technology (Davis, Bagozzi, and Warshaw, 1989; Ha and Stoel, 2009). The Technology Acceptance Model (TAM) is a theoretical model derived from the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980). This well-known social psychological model suggests a person's behaviour is based on the intention of the individual and this intention is a function of his/her attitudes (Davis, 1989).

The TAM's main purpose is to analyse the impact of external factors on internal beliefs, attitudes and intentions. TAM proposes two beliefs: perceived usefulness and perceived ease of use. Perceived usefulness is defined as the use of technology in enhancing one's performance dimension, whereas perceived ease of use refers to the degree a prospective user is able to use the technology with little effort (Davis et al., 1989). These beliefs are fundamental determinants of a person's attitude toward using technology, and they further determine behavioural intention to use technology

(Davis, 1989; Ha and Stoel, 2009). Perceived usefulness, such as competitive price, ease of accessibility and a good discount are the most important motivational factors when browsing and/or purchasing through the internet (Close and Kukar-Kinney, 2010). The unavailability of products in domestic markets also encourages customers to use online shopping to purchase products from overseas retailers (Jiang and Jones, 2016). Karayanni (2003) identified that the most important variables that differentiate the online shopping motives between online shoppers and non-online shoppers is time efficiency and convenience of 24 hour shopping. Researchers have also found that most buyers were positively impacted by the designs, graphics, colours and links of the websites, which positively influenced the intention of its user, thus motivating visual and sensory inspection (Koo and Ju, 2010).

Various researchers have adopted the framework of TAM to understand the use of technology by consumers in various technology related contexts, including online banking (Al-Somali, Gholami, and Clegg, 2009), m-commerce (Bruner and Kumar, 2005), and online shopping (Ashraf, Thongpapanl, and Auh, 2014). Thus, TAM has been validated as a robust and parsimonious model.

This section has explained the determinants of TAM, which are *perceived usefulness* and *perceived ease of use* and its application to online shopping. Additionally, various researchers (For example, Benamati, Fuller, Serva, and Baroudi, 2010; Dahlberg, Mallat, and Öörni, 2003; Gefen, Karahanna, and Straub, 2003; Palvia, 2009) have also added the element of *perceived trust* into the framework of TAM. The aspect of 'trust' on e-commerce is important in developing a positive attitude and intention towards e-commerce.

There are several definitions of trust due to its multidimensionality and complexity. The current study combines the definitions of trust by various researchers in order to derive the meaning of 'trust' in e-commerce that is relevant to consumers. Barney and Hansen (1994, p. 176) defined trust as "the mutual confidence that no party to an exchange will exploit another's vulnerabilities." Based on the Barney and Hansen (1994) definition, to have trust in e-commerce means that consumers are assured that their personal details acquired by online retailers will not be misused in any form. Mayer, Davis, and Schoorman (1995, pp. 729-730) defined trust as "the willingness of a

party to be vulnerable to the actions of another party based on the expectations that the other will perform a particular action important to the trustor". This definition of trust indicates that consumers need to be confident that online retailers will deliver their service as promised under any circumstances. According to Gefen, Benbasat, and Pavlou (2008) 'trust' is believed to develop gradually and is not a one-time interaction. Consumers trust in e-commerce, which forms the basis utilised in the current study, should also be defined by an individual's vulnerability, expectations and continual interaction with the online retailer.

The need for trust is high in computer mediated commerce because of the complexities concerning transactions (Mishra, 1996). Due to the lack of tangibility of the product for inspection or the unavailability of physical interactions to analyse the quality of the professionals, the consumer is placed in an uncertain situation and this demands the greater credulity of consumers (McKnight and Chervany, 2001). According to Urban, Sultan, and Qualls (2000), trust is an important element facilitating online purchase decisions. Whereas in traditional bricks and mortar stores, trust is based on the personal relationship and interaction between the consumer and the store retailer (Enders and Jelassi, 2000). In e-commerce, consumer trust is based on the expectations of the consumer and the fulfilment of those expectations by the online retailer (Urban et al., 2000). The fulfilment of the expectation determines the level of customer satisfaction, and thus this experience will enhance trust towards the online retailer (Ganesan, 1994; Kim, 2014).

According to Kim (2014) trust affects two aspects of online purchase: current transactions and future transactions. In the e-commerce context, trust involves the service of the seller, the consumer and the e-commerce system through which a monetary transaction is initiated (Kim, Ferrin, and Rao, 2009). Therefore, before proceeding towards an online transaction, a consumer has to overcome the psychological barrier caused by the various uncertain characteristics of e-commerce (Kim et al., 2009). These characteristics include, for example, unavailability of instant gratification, customer details being acquired by the merchant and the fact that the on screen description of the product may differ from the product delivered. The importance of trust in e-commerce is mostly concerned with the payment method (Kim et al., 2009), personal information and product (i.e., quality) not being as

described (Iglesias-Pradas, Pascual-Miguel, Hernández-García, and Chaparro-Peláez, 2013).

Trust is not static; rather it is derived from an interactive process that alters the depth of the information received and formation of relationship between the trustor and the trustee (Kim, 2014). If an online retailer induces a higher level of trust in its customer, there is less information search, and vice versa (Grabner-Kräuter, 2003). The extent of information use determines the perceived uncertainty by the consumer, and this has direct and indirect effects on satisfaction (Zahedi and Song, 2008). The level of satisfaction indicates the quality of the e-commerce service provided to the customer. Therefore Kim et al. (2009) suggest that trust and satisfaction form a basis in building a long-term association between the consumer and the online retailer. However, with more interaction, a level of trust will evolve over time between the online retailer and consumer (Zahedi and Song, 2008).

In order to strengthen consumers' trust on e-commerce, various institutions have engaged in strengthening the cyber security. Cyber security deals with various issues of cybercrime taking place on the internet such as phishing (stealing of personal information and credit card details through fake website or identity) (Fianyi, 2015). Therefore, retailers adopting cyber security measures are likely to be more attractive to consumers' (Aggarwal, 2016). This can be achieved through certification of the retailer website from reputed firms dealing with cyber security (Aggarwal, 2016).

The element of trust in online shopping and the genuineness of retailer website can also be enhanced through social media channels. Social media channels provide a platform or medium for customers to connect with a particular product, service or brand (Iglesias-Pradas et al., 2013). Through this medium, customers can gather relevant information about a product or service by reviewing the experiences, feedback and opinions posted by other customers using the social media channel. Social media channels also provide opportunities for online retailers to connect with customers personally, and assure them of the quality of their products and services (Wan et al., 2012). Thus, social media channels can be beneficial to both online retailers and customers.

The advantage of trust in an e-commerce channel is that the consumer can potentially access the product at a lower cost than by purchasing it in a traditional brick and mortar store (Hsiao, 2009; Urban et al., 2000). However, Goodman and Remaud (2015) state that price is the least important factor for shoppers in selecting a speciality store. This implies that consumers focus on the quality of the products when shopping in a speciality store. Therefore, the lack of sensory experiences when shopping through an online platform might affect consumers' confidence and preference for shopping for speciality products from a SME speciality retailer.

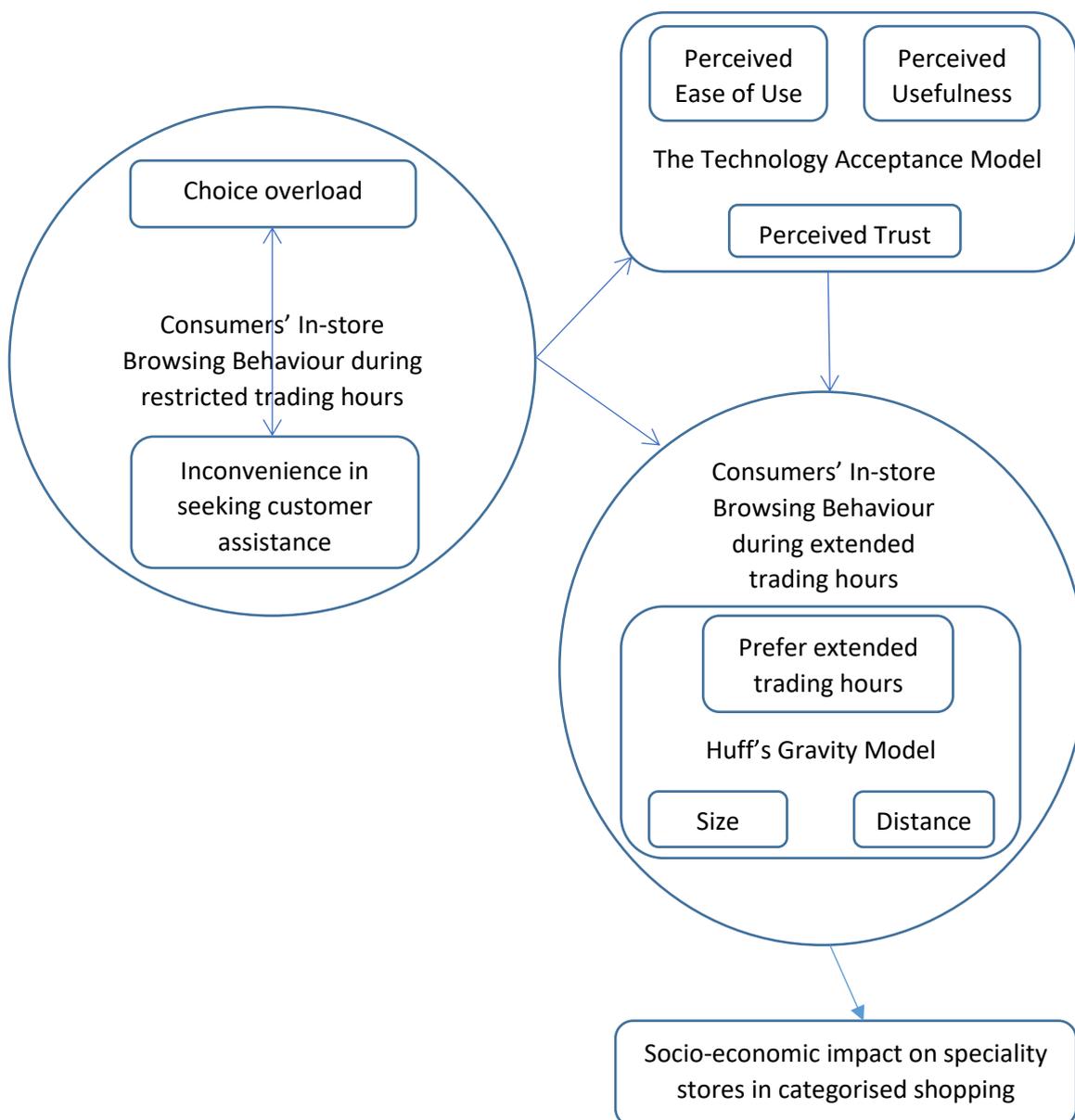
This section has summarised the importance of trust in e-commerce. Furthermore, the review of consumer spatial behaviour models and the Technology Acceptance Model has identified eight variables that will determine the impact of e-commerce on speciality stores in categorised shopping centres. These eight determinants are: attractiveness of the shopping centre; distance to the shopping centre; number of shopping centres available within the precinct; consumers' in-store browsing behaviour; retail trading hours; perceived usefulness of e-commerce; perceived ease of use; and perceived trust on e-commerce. Based on the theories reviewed in this study, section 2.5 develops a conceptual framework for this research.

## **2.5 Conceptual framework for the identification of the socio-economic impact of e-commerce on speciality stores in categorised shopping centres**

A conceptual framework is based on inductive reasoning and brings together different interrelated concepts from existing theories and empirical findings to explain a phenomenon (Imenda, 2014). In general the problems in social science are highly complex and a single theory is not usually sufficient to explain the phenomenon. In such circumstance a conceptual framework is recommended over theoretical framework (Imenda, 2014). However, unlike theoretical framework, a conceptual framework is focussed on a particular problem. Hence, the conceptual framework is usually limited to solving a single problem (Imenda, 2014). Nevertheless, the theories in a conceptual framework have equal weightage in explaining the phenomenon. Therefore, a mixed method is recommended to investigate the research questions (Imenda, 2014).

This study developed a conceptual framework showing the relationships that exist between 1) consumer browsing behaviour; 2) usage of e-commerce; 3) retail trading hours; and 4) consumer spatial behaviour in predicting the impact of e-commerce on speciality stores in categorised shopping centres (see Figure 2). This section explains the conceptual framework of the current study.

Figure 2: A Conceptual Framework for the identification of the socio-economic impact of e-commerce on speciality stores in categorised shopping centres



### *Consumer browsing behaviour*

Bloch and Richins (1983) defined browsing as a form of leisure activity with the aim of acquiring information through the process of examining store merchandise without having any current intent to purchase. Furthermore, they noted that the intent to purchase while browsing could not be clearly defined, as this activity may also lead to impulse purchasing. An impulse purchase is a sudden purchase decision made by the consumer based on their affection towards a product, and various researchers consider it to be an unintended, unreflective and immediate purchase (Rook, 1987; Rook and Fisher, 1995).

Within a shopping centre, environmental factors such as variety of stores and store decorations play an important role in influencing the level of browsing activity (Jansen-Verbeke, 1987). Displays and other facilities of the store draw browser attention and the store's interior characteristics such as music, colour and décor can be purposefully designed to appeal to a browser (Bloch and Richins, 1983). The creativeness of the retailer in setting up a distinct style of product display can increase the chances of impulse purchasing by as much as ten percent (Solomon, 2007). In addition, stores with a higher product assortment combining known and unknown brands are successful in attracting higher browsing activity because of their greater novelty and stimulation level (Raju, 1980). Hence, most often, the consumers motivated to browse are tempted to impulse purchase due to the stimulation received from the retail environment.

Besides the physical retail environment, research has also found that demographic factors can influence in-store browsing behaviour (Jarboe and McDaniel, 1987). Browsers are more likely to be aware of the various existing brands of the product that they intend to purchase than non-browsers (Jarboe and McDaniel, 1987). Browsers are usually younger than non-browsers and they also tend to visit the shopping centre more frequently than non-browsers (Jarboe and McDaniel, 1987; Xia, 2010). Jarboe and McDaniel (1987) and Xia (2010) identified browsers to be mostly employed young women and they tend to make a higher number of purchases per trip but fewer purchases per store than non-browsers.

Jarboe and McDaniel (1987) also observed that browsing behaviour was different between shopping centres, depending on the demographics of the centre's trade area, and this may have different effects on speciality shops in different locations. In order to enable generalisation of the effect of in-store browsing behaviour on speciality stores in different locations, the current study aims to control the browsing behaviour by social cognition. Social cognition in the current study is a form of social comparison related to social status, where an individual's product choice is influenced by the perception of others (Zhang and Kim, 2013). Previous research by Earl and Potts (2000) found that purchase decisions were mostly influenced by social cognition. DeSarbo, Kim, Choi, and Spaulding (2002) indicated that social cognition corresponds to an individual's purchasing power. Therefore, in the current study, two steps were followed to control the investigation of consumer in-store browsing behaviour by social cognition. These two steps were formulated in accordance with the universal dimensions of social cognition, that is warmth (i.e., likability, trustworthiness) and competence (i.e., income level, knowledge, efficiency) (Fiske, Cuddy, and Glick, 2007). Firstly, in terms of warmth, consumers' in-store browsing behaviour was investigated by consumers' preferred store/retailer for purchasing the speciality product. Secondly, in terms of competence, consumers' in-store browsing behaviour was examined by consumers' most preferred product category for browsing in-store and by segmenting individuals into different income groups (i.e., low and high-income groups). Associating consumers' in-store browsing behaviour with a particular product category will enable individuals to describe their browsing behaviour in accordance with their interests and values (i.e., wanting to be seen to be competent or fitting in with other competent people).

The benefits for consumers of browsing are that it satisfies an individual curiosity motive and increases product or market knowledge (Bloch and Richins, 1983). On most occasions, the information acquired during browsing activity in a store is an end in itself. The shopper may tend to make an impulse purchase or may be simply satisfied by acquiring the knowledge about a particular product. The information gained can also be used in future purchases (Bloch, Ridgway, and Sherrell, 1989).

The information a browser acquires about a particular product may help them to make their current purchase decision or they can retrieve that information for future

purchases (Bloch and Richins, 1983; Ferreira and Coelho, 2015). When consumers show a higher level of product involvement, there is higher retention of information (Bloch et al., 1989; Ferreira and Coelho, 2015). Product involvement is the level of interest shown by a consumer in a particular product class based on the consumer's needs, values, and interests (Bloch, 1982). Additionally, Ferreira and Coelho (2015) found that consumers showing a high level of product involvement tend to patronise a certain store.

Various researchers have observed that consumers usually rely on the information available in their memory in making a pre-purchase search, which leads to a low level of information search when a purchase need arises (Bettman, 1979; Staden and Aardt, 2011). However, Bloch et al. (1989) concluded that previous instances of browsing activity helps in retaining information about the product and the market place in the memory of the consumers, which reduces the need for a further search when a purchase need arises in future. Therefore, Romaniuk and Sharp (2004) suggested that, although a retailer's convenient location is important, its presence in a consumer's mind is what makes the difference as it influences consumers in their choice of where to shop. Goodman and Remaud (2015) found that consumers were more likely to choose speciality stores over department stores if they perceived the speciality retailer delivered high quality products and services (related to product knowledge). Hence, in-store consumer browsing behaviour is an important factor for speciality stores as it creates awareness in consumers' minds relating to products and services, as well as their store's brand. However, restricted retail trading hours may limit or demotivate consumers' to browse in store for longer period.

#### *Consumer in-store browsing behaviour during restricted trading hours*

Consumers' browsing in store during restricted trading hours may experience two possible outcomes: choice overload and inconvenience in seeking customer assistance. These outcomes may influence consumers' to prefer shopping on days having extended trading hours. The existing theories of consumer spatial behaviour have only explained 'when', 'where' and 'how often' consumers visit shopping centres (Baker, 2006). The current research attempts to provide the explanation of 'why' consumers' may shop during extended trading hours and add to the existing theories of consumer

spatial behaviour. Choice overload and customer assistance are further elaborated in turn in order to highlight its significance on the performance of speciality stores within a shopping centre.

### *1. Choice overload*

Previously, designs of shopping centres were aimed at increasing browsing activity during purposive shopping expeditions by making the search for a product or store less easy (Earl and Potts, 2000). A regional shopping centre provides a good space for such browsing activities and consumers are induced to browse effectively due to the comfort of the surrounding retail environment (Jarboe and McDaniel, 1987). However, Reimers and Clulow (2009) and Bailey (2013) found that, at present, Australian consumers are usually time pressed for shopping activities. Therefore, shopping centres are placing more emphasis on facilitating convenience. Hence, shopping centre designs or strategies that affect the visibility of stores (i.e., spending more time and effort in locating a particular store during time pressed shopping activity) may influence shoppers, creating displeasure. For example, consumers' will miss the opportunity to browse (i.e., with the intention to purchase) the product in-store effectively if they are spending more time locating their target store especially during restricted trading hours of the shopping centres, affecting consumers' purchase decision. This could cause people to choose smaller, 'friendlier' centres.

One of the negative effects of restricted trading hours is that consumers' are under pressure to make a decision quickly to be able to fit within the trading hours of the shopping centre. Consequently, consumers may experience choice overload when shopping during restricted trading hours. Researchers have associated choice overload with the amount of information or options presented to shoppers in a short period of time (Chan, 2015; Diehl and Poynor, 2010; Haynes, 2009). The number of speciality stores and depth of product lines carried by regional shopping centres is large compared to sub-regional shopping centres and neighbourhood shopping centres. Hence, the likelihood of consumers experiencing choice overload will be higher at regional shopping centres.

Townsend and Kahn (2014) found that consumers were unable to distinguish clear differences between product attributes when given a large number of visual

representations within a short time. This causes choice overload, which in turn influences consumers to abandon their intention to purchase. The current research aims to investigate whether choice overload (i.e., due to the presence of numerous stores) is one of the factors that influences consumers to shop for speciality products during extended trading hours. Choice overload in the current research is measured by consumers' perceived level of visibility (i.e., recall the existence of a particular store or retailer) of speciality stores in categorised shopping centres. Furthermore, Polman (2012) found that consumers experienced less choice overload when purchasing a product for others (i.e., a gift for a friend or relative) than when they are shopping for themselves. Therefore, the current research is focused on purchase decisions made by the consumers for themselves.

Goodman and Malkoc (2012) found that when consumers were time-poor, they usually tend to choose a larger size shop. They further noted that feasibility is the main factor influencing consumers' choice of larger or smaller stores during time constrained shopping activities. For example, consumers were likely to perceive a larger-sized shop to have more variety and a larger number of product lines. As a result, consumers find larger-sized stores more feasible in accomplishing their shopping objectives when they are not well informed, possess inadequate information about the product category and the presence of other alternatives and are time pressed (Iyengar and Kamenica, 2010). As Goodman and Remaud (2015) assert, in contrast, when they are well informed about the product category, consumers are likely to choose smaller size speciality stores over a larger size department stores. They found consumers who preferred to shop at speciality stores perceived that the quality of products was better than those in department stores. Therefore, the current study argues that the visibility of the SME retailers' products and services in a shopping centre is very important for their success.

However, the current study suggests that department stores hold an advantage over speciality stores when consumers are experiencing time constraints in their shopping activities in a shopping centre. The overall size of speciality stores is small in comparison to department stores, but speciality stores usually carry more variety and depth in a single product line than department stores. Mogilner, Rudnick, and Iyengar (2008) found that consumers who have expert knowledge about a product category

tend to experience dissatisfaction when there is a narrow range of products, and ultimately they tend to defer making a purchase decision. Consumers who have high knowledge or are expert in a particular category would gain higher satisfaction from a speciality store than a department store. However, experts are more likely to choose a department store when they are time poor.

Chan (2015) found that the probability of consumers regretting their purchase decisions due to time constraints was high when there is greater similarity in the product quality. Consumers who are unfamiliar with or have less knowledge about the product category tend to experience frequent choice overload when there is a wide range of products. This ultimately influences them to defer their purchase (Mogilner et al., 2008). Therefore, consumers who are unfamiliar with the product category are likely to prefer shopping at well-known brand outlets during time constrained shopping activities. Ferreira and Coelho (2015) found consumers who were unfamiliar with the product category often rely on the brand image when determining their purchase decision, as it reduces their shopping effort. Chernev, Böckenholt, and Goodman (2015) also found that the consequence of consumers' choice overload is that retailers are likely to lose sales, as consumers tend to defer their purchase or choose an alternative option. These findings suggest that choice overload caused by consumers' time constraints for shopping activities is likely to negatively affect the speciality stores run by SME retailers the most.

## *2. Customer assistance*

Goodman and Remaud (2015) found that the main reason for consumers to visit speciality stores was to access the expertise of the staff in a particular product category. Thus, the possibility for consumers to browse and/or purchase at speciality stores is higher when consumers visit a shopping centre with the prior intention of seeking customer assistance to secure a purchase. However, shorter trading hours of speciality stores is likely to have a negative effect on those consumers who require customer assistance in order to make a purchase. For example, consumers who seek customer assistance are likely to prefer to spend some time browsing in a store or in different stores before making a purchase decision because they do not know what is best. The current study suggests that those consumers who frequently seek assistance when shopping are generally more likely to support an increase in the frequency of

extended trading hours than those consumers who rarely seek customer assistance. Hence, the causal relationship suggested by Goodman and Remaud (2015) between customer assistance and preference for speciality stores may help in determining consumers' demand for extended trading hours of speciality stores within a particular shopping centre trade area.

Social cognition also influences consumers to look for expert advice prior to making their purchase decisions (Price and Feick, 1984). Therefore the role of staff or the retailer in providing customer assistance and recommendations is highly influential when purchasing a new product (Bloch and Richins, 1983). Furthermore, consumers' are likely to seek recommendations or customer assistance only from retailers or customer assistants that fit into the social cognition of the consumer (i.e., they are liked, seen to be competent and aspirational that fits with their ideal social grouping).

#### *Choice overload and Customer assistance*

This study suggests that consumers visiting a regional shopping centre during restricted trading hours are likely to experience inconvenience in seeking customer assistance due to choice overload and vice versa. In contrast, if consumers have the opportunity to avail customer assistance with ease when shopping in-store they are less likely to experience choice overload and vice versa. For example, Townsend and Kahn, (2014) found verbal communication to be helpful for consumers to determine their purchase decision when they may be experiencing uncertainty about their product selection. In other words, consumers need the opportunity to interact with the staffs effectively when purchasing products for which they have limited knowledge. Alternatively, consumers may use e-commerce to identify their preferred stores online prior to seeking customer assistance in a regional shopping centre.

#### *Influence of e-commerce on consumer in-store browsing behaviour*

Browsing behaviour is influenced by consumer characteristics and the retail environment (Xia, 2010). Changes in consumer demographics such as income, age and marital status affect the motivation of in-store browsing (Xia, 2010). For example, as people age, they are less likely to engage in in-store browsing activity, presumably due to a decline in their health and physical movement. Furthermore, Kim and Kim (2008)

claim that the shopping process is often performed under time pressure as the shopper has competing claims on their time, for example work, education and taking care of children. Therefore, consumers, especially those who belong to the middle aged group<sup>2</sup>, are likely to spend less time browsing in-store due to time constraints. Hence, consumers' perceived trust on e-commerce could help them in managing shopping activities when they are time-constrained.

Despite the lack of trust on e-commerce, consumers' can still visit shopping centres with pre-determined purchase objectives by comparing products online prior to purchasing in-store. Scheibehenne, Greifeneder, and Todd (2010) also found that consumers who had prior preferences (acquiring product knowledge through e-commerce or recalling previous in-store browsing experiences) before choosing were more likely to experience a reduction in choice overload when browsing in-stores in comparison to consumers who had no prior preferences. By limiting the number of purchase options consumers felt greater satisfaction with their purchase decisions (Gu, Botti, and Faro, 2013). Therefore, the current research investigates the probability of consumers' to use e-commerce prior to visiting shopping centre in order to reduce choice overload.

Additionally, with the rise in internet usage, social media channels have become the new medium for consumers to obtain 'expert' advice and feedback from others (Piotrowicz and Cuthbertson, 2014). Frequent online shoppers tend to be highly informed and have more knowledge of a product than non-frequent online shoppers (Wan et al., 2012). In this context, the current study also investigates the probability of consumers' using e-commerce to compare products online which may obviate the need for customer assistance in store. The Technology Acceptance Model was employed to predict the usage of e-commerce by consumers'.

#### *Interaction between the Technology Acceptance Model and Huff's Gravity Model*

Literature review indicates that interaction between the Technology Acceptance Model and Huff's Gravity Model has not been examined previously. The Technology

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<sup>2</sup> According to (Australian Bureau of Statistics, January 2012) the age range from 35 to 54 is considered to be a middle aged group and the age from 55 and above is regarded as an older aged group.

Acceptance Model, as discussed in-depth in Section 2.4, is defined by perceived usefulness, perceived trust and perceived ease of use. Consumers who frequently use online shopping to acquire information and/or purchase products have been observed to reduce their shopping time when they are in shopping centres (Weltevreden, 2007). Therefore, this study suggests that the consumer browsing behaviour may establish interaction between the Technology Acceptance Model and Huff's Gravity Model. The Huff Gravity Model, as discussed in-depth in Section 2.3, focuses on size of, and distance to, the shopping centre. Furthermore, this model also takes into account the number of other retail centres present within the precinct. Hence, this research may reveal previously unrecognised consequences of e-commerce on consumer spatial behaviour.

#### *Preference for browsing in store during extended trading hours*

To extend and improve the Huff Gravity Model's predictive accuracy of consumer shopping centre patronage during extended trading hours, the current research proposed an additional factor. According to the SafeWork (2013) report, the majority of the consumers who visited the CBD precinct during extended trading hours were identified to have a high preference for shopping on public holidays. This finding suggests that consumers who prefer to spend their leisure time on shopping activities are more likely to visit the shopping centres during extended trading hours. Therefore, in the current study, consumers' perceived level of shopping preference on days having extended trading hours was added, along with the determinants of the Huff Gravity Model that is 'size of' and 'distance to' shopping centre.

#### *Socio-economic consequences of extended trading hours*

Liberalisation of retail trading hours has social and economic consequences. SME retailers had negative social consequences as they had to work longer hours, which ultimately affected their wellbeing (Wenzel, 2011). In contrast, liberalisation of trading hours provided consumers' with the flexibility in planning their shopping activities based on their schedule, and they also had the opportunity to engage with recreational shopping activities such as browsing in-stores (Wenzel, 2011).

The economic consequence of liberalisation of trading hours is that the larger-sized shopping centres tend to attract the majority of shoppers, thus affecting the

performance of the smaller-sized shopping centres within the precinct (Baker, 2002). In this context, restricted trading hours were considered important in maintaining the viability of smaller centres and SME retailers. However, such restrictions do not pertain to online shopping. Instead, the restrictions are likely to diminish the key advantage of in-store shopping - that is instant gratification, thus making online shopping and in-store shopping less different in their service.

The next section 2.6 discusses the arguments supporting restricted and extended retail trading hours in Australia and provides justification for focussing the investigation of this research on days offering extended retail trading hours.

## **2.6 Retail trading hours**

The state and local government authorities in Australia have enacted legislation and policies that restrict retail trading hours with the aim of sustaining the competitiveness of smaller businesses against larger businesses (Hollander, 2006). For example, the Queensland State Government enacted the *Trading (Allowable Hours) Act 1990* to control business trading hours to nurture the growth of small retail centres and SME retailers (Business Queensland, 2017).

In 2013, SafeWork<sup>3</sup> commissioned The South Australian Centre for Economic Studies to compile a report on an Adelaide CBD shopping precinct, with a specific focus to understand community reaction towards the liberalisation of shop trading hours (SafeWork, 2013). The report indicated that extended trading hours had elicited positive reactions from consumers as it allowed them to visit the stores after work and spend additional leisure time while shopping. Extended trading hours also was perceived to contribute to improvements in overall societal welfare of the consumers who visited the Adelaide CBD precinct (SafeWork, 2013).

Despite the significant impact on consumers' welfare as described in the SafeWork (2013) report, the benefits of deregulation were not the same for the smaller retail centres as they did not experience any increase in sales or revenue (Baker and Wood, 2010). Instead, the extended trading hours proved to be more advantageous to bigger

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<sup>3</sup> 'SafeWork' monitors the public safety and work health standards in South Australia and is a business unit operating under the Attorney-General's Department.

centres such as regional shopping centres, as they tended to attract the majority of shoppers (Baker and Wood, 2010). Thus, deregulation of trading hours is likely to negatively affect the frequency of visits to smaller retail centres, such as neighbourhood centres and other traditional retail centres located within the catchment area of the regional shopping centre (Baker and Wood, 2010).

It was perceived that the deregulation of trading hours affected the survival of the SME retailers the most (SafeWork, 2013). Wenzel (2011) found that extended trading hours were very demanding for the majority of SME retailers, as they required additional investment that influenced time, physical and mental resources, and ultimately financial capacity. Collectively, these issues can negatively affect the longevity of SME retailers, as they often cannot draw on the same level of resources and capacity as their larger competitors. Consequently, this increases the workload and the overhead costs of smaller businesses. Furthermore, Price (2005) found that the employment rate in the Australian retail sector was the same despite the extension of retail trading hours. This suggests that SME retailers are likely to work by themselves during extended trading hours in order to reduce the operating cost of their business. Hence, it could be said that SME retailers and/or retail employees tend to make decisions that negatively affect their wellbeing. In this context, social and religious groups have asserted that extended trading hours, especially on weekends, present an unhealthy competitive environment (Huddleston and Huddleston, 2010; Kennedy, 2010). These findings raise a strong counter argument to the benefits of extended trading hours.

Yet there are empirical results that have demonstrated that those SME retailers who managed to survive the competition during extended trading hours could expand the size of their businesses due to an increase in consumer spending (Business South Australia, 2018; Nooteboom, 1983; Wenzel, 2011). However, the majority of SME retailers did not perform well during extended trading hours, while department and chain stores were least affected by the extended trading hours due to their economies of scale (Gradus, 1996; Nooteboom, 1983; Wenzel, 2011). Nevertheless, an Australian Productivity Commission (November 2011) report indicated that the liberalisation of trading hours increased consumers' spending. Thus, liberalisation of trading hours increases the challenges for SME retailers, but at the same time, may also provide

opportunities to expand their businesses. In other words, restricted trading hours may help in maintaining the viability of the majority of SME retailers to some extent, but equally they place social and economic burdens on SME retailers.

Trading hours are also one of the key factors influencing consumers' choice of shopping centres. Shy and Stenbacka (2008) found that the non-uniform trading hours of the stores within the shopping centre affect consumers' shopping activities (i.e., one-stop shopping and in-store browsing activities). Therefore, shopping centre managers need to maintain a uniform trading schedule, which might compel small retailers to stay open during extended trading hours despite their lower productivity/sales. Thus, a disadvantage for small retailers renting a physical space within the shopping centre is they are bound by the shopping centre management requirements around operational hours and do not have flexibility or full authority to operate their businesses during hours they dictate. This may also strain the relationship between small retailers and shopping centre management. Therefore, the current study specifically seeks to investigate the performance of SME retailers in categorised shopping centres during weekday extended trading hours (i.e., late evening trading hours).

This research adopts the definition of categorised shopping centres in Australia used by the Shopping Centre Council of Australia (SCCA) as it provides uniform guidelines for the reporting of sales and occupancy costs (refer section 1.1 for definition of categorised shopping centres). These guidelines are considered as the industry standard and are adopted by the wider retail industry across Australia (URBIS, 2015). Hence, the definitions of the shopping centres are the same, irrespective of whether they are located at a Central Business District (CBD) or a suburban area. The only difference between suburban shopping centres and shopping centres in the CBD is that the suburban centres are located in close proximity to consumers' residences, whereas, CBD centres are located in close proximity to consumers' workplaces (URBIS, 2015).

This study focuses on suburban shopping centres for two main reasons. Firstly, deregulation of trading hours within the Adelaide CBD precinct was found to have a lower impact on suburban consumers, as most preferred to shop within the suburban

precinct, despite the restricted trading hours (SafeWork, 2013). Thus, proximity of the shopping centre to consumers' residences is still pertinent in influencing consumers' choice of shopping destination. Secondly, most shopping centres are usually located in the suburbs (URBIS, 2015).

The cost of renting in categorised shopping centres varies significantly depending upon location and category. In terms of average rental value, Table 1 indicates that renting a speciality store at a regional shopping centre is very expensive in comparison to renting in sub-regional and neighbourhood shopping centres. Table 1 also indicates how important the speciality stores are for shopping centres in terms of generating revenue.

Table 1: Queensland shopping centres average annual rental per m<sup>2</sup>

Shopping centre type	Regional shopping centre		Sub-regional shopping centre		Neighbourhood shopping centre	
	Low	High	Low	High	Low	High
Tenants' gross annual rent						
Supermarket per m <sup>2</sup>	AUD \$350	AUD \$500	AUD \$350	AUD \$500	AUD \$350	AUD \$500
Discount department store per m <sup>2</sup>	AUD \$200	AUD \$285	AUD \$200	AUD \$285	N/A	N/A
Speciality store per m <sup>2</sup>	AUD \$855	AUD \$1,710	AUD \$570	AUD \$1,140	AUD \$523	AUD \$808

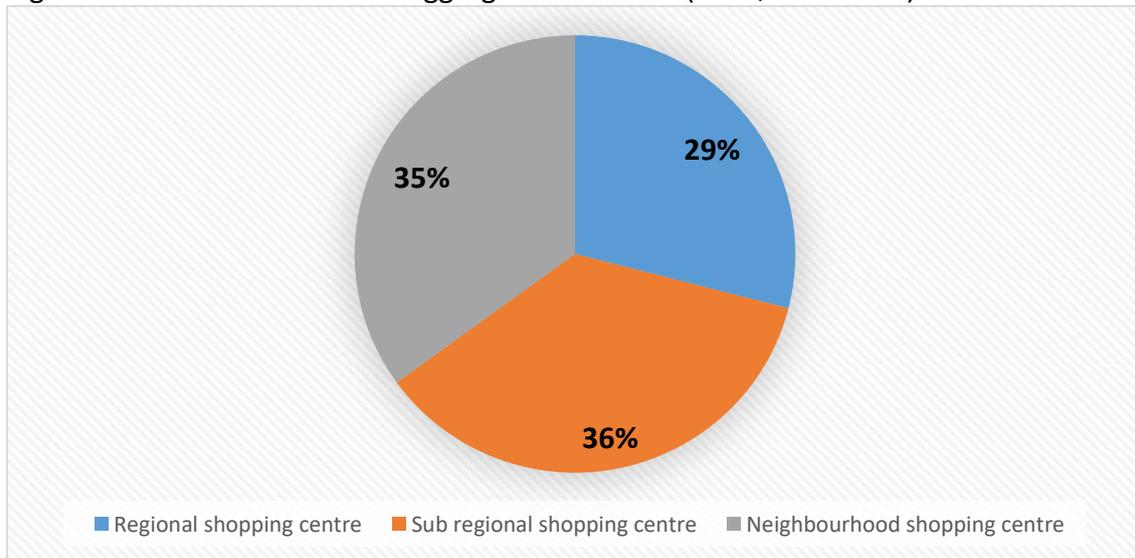
\*N/A not available

Source: (Savills Research Australia, 2018)

According to URBIS (2015, p. 1) "for the year ending June 2014, total aggregated centre turnover was estimated at AUD\$130.7 billion with inclusive of GST". As for the three categories (i.e., regional, sub-regional and neighbourhood centre) of shopping centres, the combined total aggregated turnover for the year ending June 2014 was

estimated at AUD\$109 billion (URBIS, 2015). The share of total aggregated annual turnover between the three categories of shopping centres is presented in Figure 3.

Figure 3: Share of total annual aggregated turnover (AUD\$109 billion)



Source: (URBIS, 2015)

Figure 3 above indicates that smaller shopping centres are equally competitive with the regional shopping centres in terms of annual turnover. One of the main reasons that smaller shopping centres sustain their competitiveness is because of restricted trading hours, as well as the volume of smaller shopping centres in comparison with regional. Baker (1997) empirically demonstrated that longer trading hours were more beneficial to larger sized shopping centres, therefore, restricted trading hours were considered necessary to disperse the frequency of visits to smaller shopping centres. However, with the introduction of online shopping, consumers' now have the flexibility to shop without any temporal restrictions. In other words restricted trading hours may drive consumers' to shop online. According to Australia Post (2019) report the majority of online purchases took place between 5pm to 11.59pm. Therefore, section 2.7 reviews Australia's online market.

## 2.7 The growth of e-commerce in Australia

The Organisation for Economic Co-operation and Development (OECD) defines e-commerce as the process of buying and selling goods and services over a computer-mediated network between businesses, households, individuals, government and other organisations (Qin, Chang, Li, and Li, 2014). E-commerce can involve transactions

that are either business to business (B2B) or business to consumer (B2C) (Tian and Stewart, 2007). The current research focuses on business to consumer (B2C).

The earliest forms of e-commerce used in business activity were the telegraph, telephone, telex, and fax, which were replaced by Electronic Data Interchange (EDI) which originated in 1960 (Qin et al., 2014; Tian and Stewart, 2007). EDI supported the transfer of business documents in a standard format from one computer to another through a value-added network (VAN). VAN is software used to connect the independent networks of businesses in order to make secure transactions of data (Qin et al., 2014). VAN was also perceived to be beneficial only to large-scale transnational companies due to the high cost of maintenance and transactions (Kuan and Chau, 2001), however, the use of EDI has helped to reduce hardcopy paperwork and the cost of printing, and later became known as 'paperless trade'. It also reduced the preparation time for business documents, thus enhancing the efficiency of document handling processes and promoting the growth of international trade (Kuan and Chau, 2001).

In the early 1990s, e-commerce was introduced by the International Business Machines Corporation (IBM) with the removal of the prohibition on the commercial use of the internet in the United States (Qin et al., 2014). The internet originated in America in 1960 as the Advance Research Project Agency Computer Network (ARPANET) and was mainly used by the military, scientific and educational departments (Qin et al., 2014). By 1995, after the restrictions on the commercial use of the internet were removed, it was widely integrated into businesses due to the reduced cost of communication and transfer of business documents (Tian and Stewart, 2007). The internet became a popular channel for businesses to disseminate product information, and for customers to acquire product knowledge through browsing online (Qin et al., 2014).

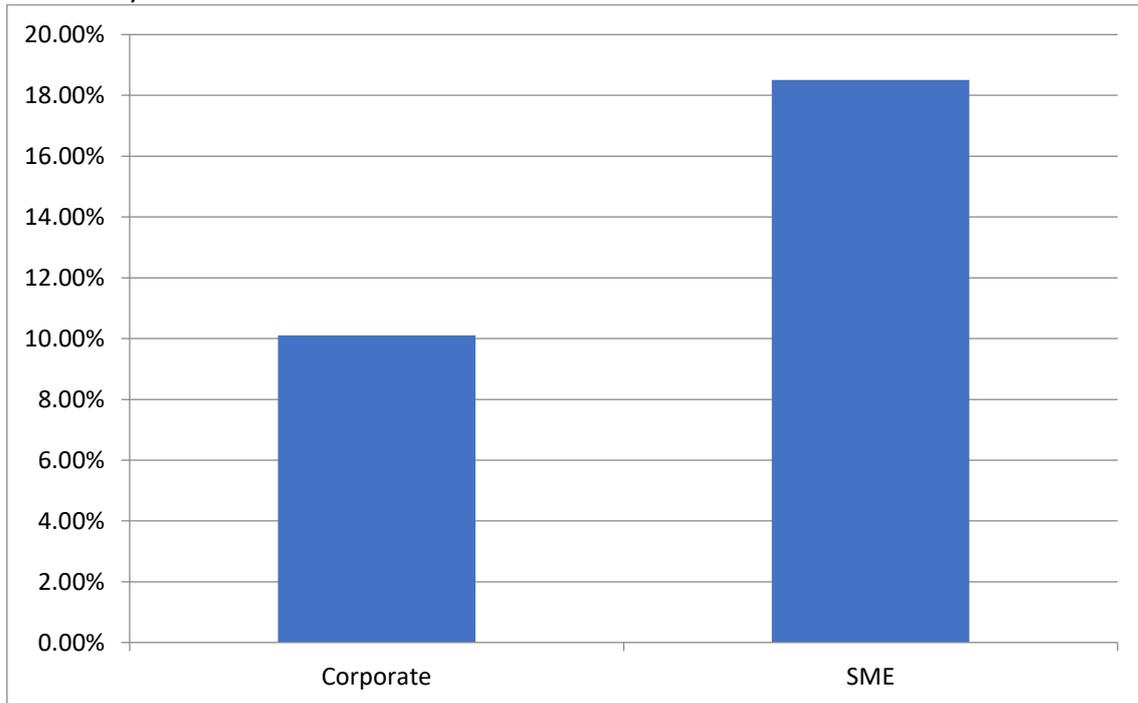
In the period between 1997 and 2000, e-commerce introduced online payment transaction processes and internet-related business gained popularity (Qin et al., 2014). This generated higher levels of investment of venture capital that was optimistic about the prospects of e-commerce. Such optimism encouraged new e-services, such as online bookstores and online banking (Tian and Stewart, 2007). With such changes,

customers were able to browse product information, check bank account balances and perform online payment transactions (Qin et al., 2014). Consumers were able to purchase products without venturing out to a physical store and sellers had new distribution channels for product delivery (Tian and Stewart, 2007). In 2000, companies investing in e-commerce experienced the bursting of the 'dot com' bubble and despite many bankruptcies; e-commerce saw a surge in sales (Tian and Stewart, 2007).

In 2002, after the dot com bubble burst, e-commerce began to develop appropriate business models for online-based companies. This period also experienced a surge in the usage of the internet, which facilitated higher growth in online transactions (Tian and Stewart, 2007). The advancement of technology and the introduction of broadband provided faster speeds for editing and viewing of videos and images, whereas other technology such as barcodes and scanners helped in tracking deliveries and inventories (Qin et al., 2014). When Radio Frequency Identification (RFID) technology appeared, this allowed enterprises to integrate all the business processes and it enabled the tracking of products with scanners, performing effective communication and sharing of transactions, inventory logistics and customer demand (Ngai, 2007). Mobile technology also brought great changes in e-commerce as smartphones facilitated the use of the internet, further expanding the e-commerce business (Qin et al., 2014).

E-commerce is a global phenomenon as the growth of e-retailers has surged over the years in various countries with development in infrastructure and increased bandwidth, facilitating effective internet service. According to the National Australia Bank (2017), e-commerce sales in Australia were estimated at AUD\$24.2 billion, equivalent to 7.8% of the total size of traditional retailing during the calendar year 2017. Furthermore, online sales for the calendar year 2017 were dominated by small online retailers (see Figure 4), and accounted for 36% of the total online sales in Australia (National Australia Bank, 2017).

Figure 4: Growth rate of corporate and SME online retailers in Australia during the calendar year 2017

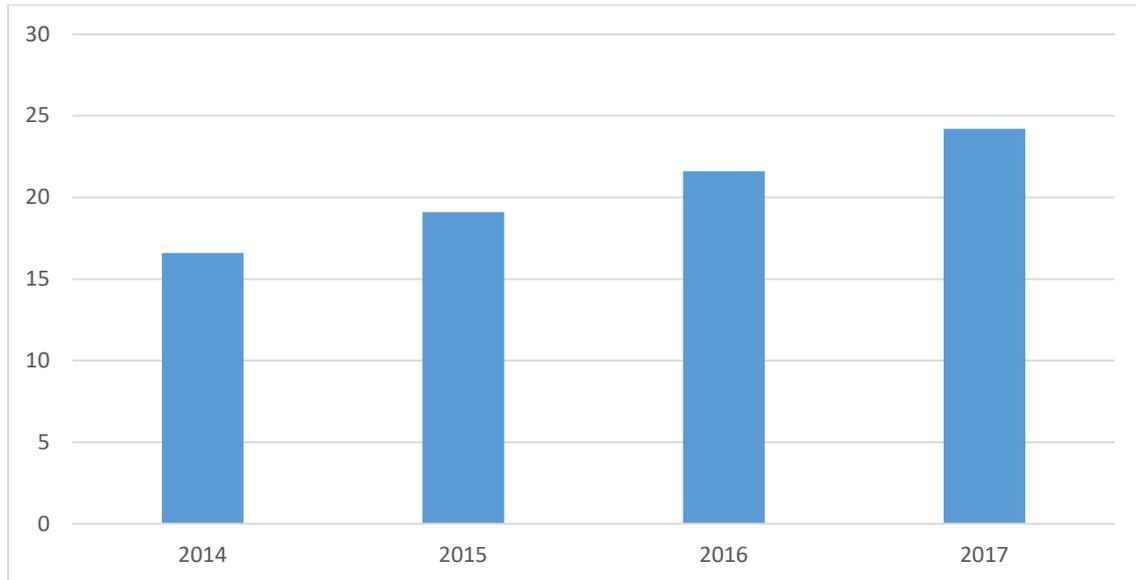


Source: (National Australia Bank, 2017)

According to Figure 5, the growth in e-commerce sales in Australia has continued to increase over the years. However, Australia's online sales were very low in comparison to International online market. The global online sales during the calendar year 2017 was estimated at USD\$1.57 trillion (Australia Post, 2018). Countries like China, India and United States that have high population dominated the online sales (Australia Post, 2018).

Furthermore, during the period 2014 to 2017 Australia has experienced 9%-20% year-on-year growth rates (National Australia Bank, 2015a; National Australia Bank, 2015b; National Australia Bank, 2016; National Australia Bank, 2017) while preceding years the growth rates were found at 20%-30% (National Australia Bank, 2015b).

Figure 5: Australia annual online sales index from calendar year 2014-2017 in billions 'in Australian Dollar'

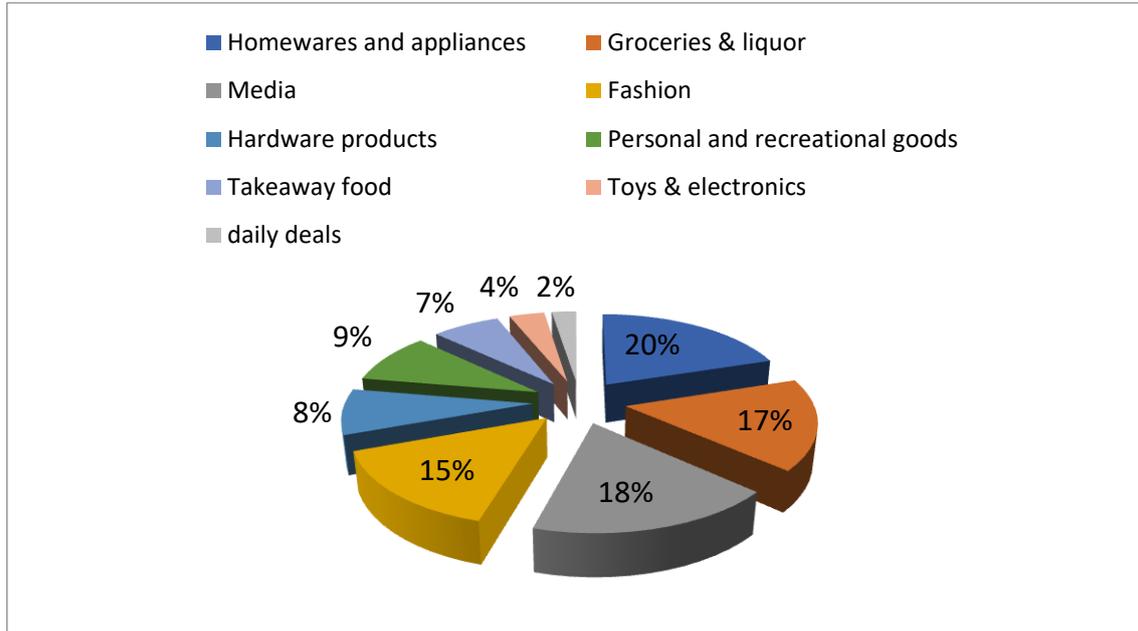


Source: (National Australia Bank, 2015a; National Australia Bank, 2015b; National Australia Bank, 2016; National Australia Bank, 2017)

The growth rate of e-commerce in Australia during the calendar year 2017 was 18.7%, compared with 2.5% growth of bricks and mortar stores (Australia Post, 2018). Domestic online shopping (11.2%) has experienced a higher growth rate than international online shopping (6.2%) (National Australia Bank, 2017). Since the majority of online purchases in Australia are domestic, there is a high possibility that e-commerce has some impact in terms of sales and revenue on various retail centres, including shopping centres, in Australia.

Figure 6 demonstrates that there are significant differences in online sales of different product categories in Australia. The percentages of sales in homewares, media, groceries and fashion are in double digits, with the majority of online sales comprised of these product categories despite the lack of tangibility when purchasing online. Consumers shopping for groceries and liquors online also indicate that they can substitute their shopping centre visits by online shopping. Consequently, shopping centres that are functional oriented (rely on grocery shopping) may be negatively affected.

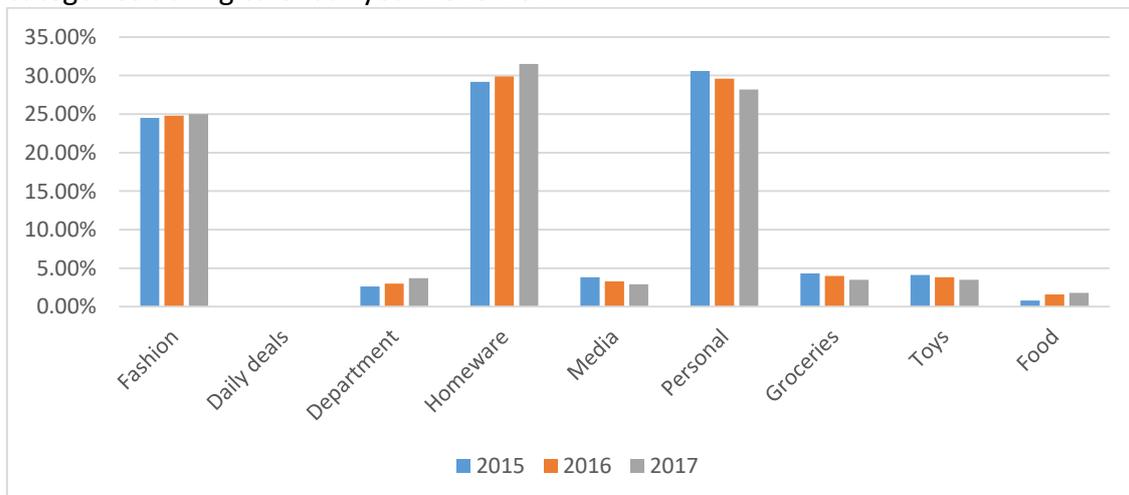
Figure 6: Online sales in Australia based on product category during the calendar year 2017



Source: (National Australia Bank, 2017)

Figure 7 shows that small online retailers are highly successful in three product categories: fashion, homewares and personal items. As for other product categories, such as daily deals, media, groceries, toys and food, small online retailers are performing below average. Therefore, small online retailers are not likely to make much impact on groceries and media products, although these product categories comprise a major portion of online sales in Australia.

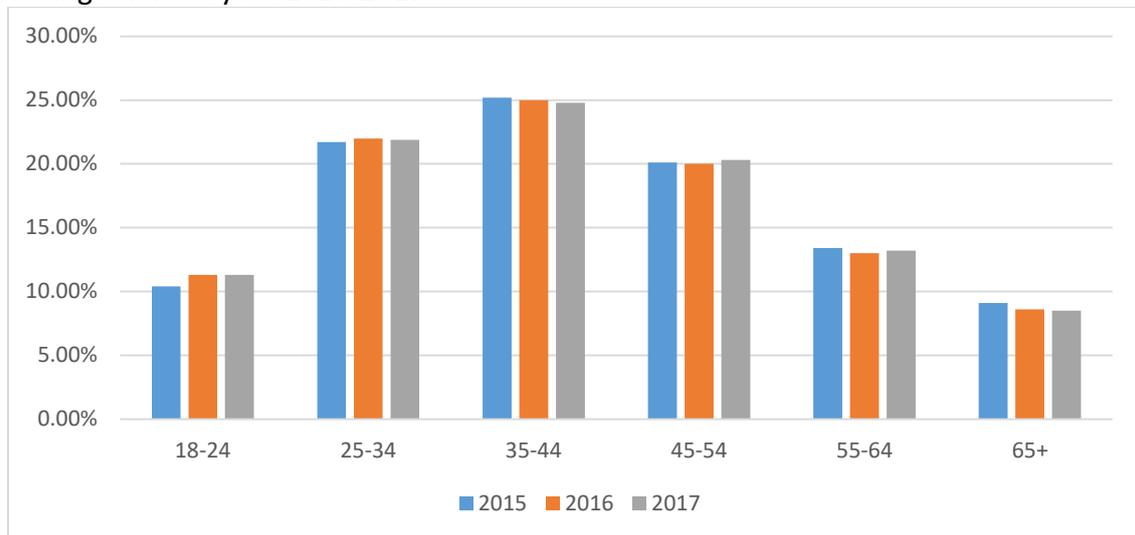
Figure 7: Share of online spending on SME retailers in Australia based on product categories during calendar year 2015-2017



Source: (National Australia Bank, 2015a; National Australia Bank, 2016; National Australia Bank, 2017)

Yet there are differences in who are online consumers, as evidenced in Figure 8. Figure 8 shows that the majority of online sales are associated with three age groups: 25-34, 35-44 and 45-54 years of age. The age group from 35 to 44 had the highest online purchases of all the groups in Australia during the calendar year 2017.

Figure 8: Demographic segmentation (age) of domestic online purchases in Australia during calendar year 2015-2017



Source: (National Australia Bank, 2015a; National Australia Bank, 2016; National Australia Bank, 2017)

In order to draw inferences from Figures 8 above, consumers' ages are classified into young adult, middle age and older age groups using ABS standard classification. An individual within the age range of 18-34 is classified as young adult (Australian Bureau of Statistics, September 2012). Meanwhile, Individuals within the age range of 35-54 are classified as middle aged and individuals in the age range of 55-84 are classified as older aged (Australian Bureau of Statistics, January 2012).

Middle age and older age groups purchase necessary household goods such as groceries and homeware items online, compared with other age groups (National Australia Bank, 2017). Especially for the older age group, e-commerce can be much more convenient and advantageous when purchasing groceries and liquor items, as purchasers do not have to carry heavy loads. For the middle aged group, e-commerce can be an efficient way to shop amidst their busy schedules.

Based on the literature review on consumers' browsing behaviour, the younger age group tends to browse within shopping centres more often than the middle and older

age groups. Presumably, the middle age group may be reluctant to browse due to time constraints, while due to decline in their physical movement the older age group may engage minimally in in-store browsing activity. Xia (2010) also proposed that browsing activity is influenced by the increase in age, income, and the marital status of the consumers. Therefore, it is apparent that e-commerce can be beneficial for middle aged and older aged groups in overcoming their disadvantages in performing shopping activities. Researchers have also noticed that the older age group will learn the skills needed to use e-commerce if the products and services offered are useful (Hernández, Jiménez, and José Martín, 2011).

Income is also considered a main factor enabling those who are middle aged to make more online purchases than the younger age group. Since the middle aged group usually has higher income than the younger age group they are more likely to accept the risk (refer to trust in Section 2.4) associated with online purchasing, given the apparent advantages which online shopping offers to them (Wan et al., 2012).

Figure 4 show the significant growth of small online retailers. These retailers can use their products and services to cater to different age groups and they can have a more diverse group of customers. Whereas the speciality stores (e.g., a small fashion boutique store) in a shopping centre are limited to specific customers, especially the younger age group who are likely to browse more often than the other age groups. Figure 8 shows that this younger age group is also highly associated with e-commerce. The younger age group frequently used e-commerce in the areas of fashion, takeaway food and media (National Australia Bank, 2017).

As consumers of different ages move towards online shopping, the shopping centres in Australia are vulnerable to losing a certain portion of their sales and profit to online shopping. Equally, the quality of services and products experienced with previous online purchases will determine the confidence of online consumers, regardless of their age. An increase in confidence will strengthen the probability for more online purchases in the future (Wan et al., 2012).

Furthermore, as technology becomes fully embedded in our work and education system, the confidence of using e-commerce will be enhanced (Hernández et al., 2011). Therefore, the new economy plays an important role in the upsurge of e-

commerce growth. The new economy has been, and is still being, created by the forces of globalisation and the revolution in information and communication technology (ICT) (Pohjola, 2002). The new economy is defined as “production and service based on knowledge-intensive activities that contributed to an accelerated pace of technological and scientific advance as well as equally rapid obsolescence” (Powell and Snellman, 2004, p. 201).

Globalisation is defined as the international integration of the financial and production structures of countries and increases in cross border trade (Archibugi and Iammarino, 2002). Globalisation is also defined as the process of economic transactions taking place through electronic media, where the buyer and seller form a contractual agreement regarding the payment and delivery of particular goods and services (Globerman, Roehl, and Standifird, 2001). The causes of globalisation have been identified to be both economic and technological in nature. The economic manifestation of globalisation is driven by higher financial investments, increased trade activities and tourism (Archibugi and Iammarino, 2002; Totonchi and Manshady, 2012).

The global production network gives rise to new opportunities and challenges, which can be addressed with the adoption of information and communication technology (ICT) as it reduces the cost of transactions and coordination and enhances market expansion and delivers economies of scale (Goldberg and Romano, 2001; Totonchi and Manshady, 2012). The members of the Organisation for Economic Co-operation and Development (OECD) highlights that the Information and Communication Technology (ICT) sector performs encryption of information into electronic data which can be stored and accessed through electronic devices and the internet (OECD, 2002).

By reducing transaction and information costs, technology has made great strides towards the connectivity of the global market (Globerman et al., 2001). The connectivity of the global market is facilitated by e-commerce which has enabled consumers to purchase retail products from overseas and has contributed to the globalisation of economic activity by reducing geographical constraints (Tian and Stewart, 2007).

The adoption of ICT has facilitated effective communication, coordination and information processing at a cheaper cost in managing companies' operations and coordinating value chains across borders (Cavusgil, 2002; Freund, 2004). ICT applications can be used by any business, organisation, or consumer. In this new economy, e-commerce will be the most important tool for the corporate sector in increasing profitability and gaining competitive advantage in the global market (Jehangir, 2011).

Local businesses can also maintain market competency and adopt e-commerce strategies for expanding in their domestic markets. Globerman et al. (2001) identified that the purchase of end services still tends to be localised. Local businesses have good knowledge of local markets and of distribution channels and have strong brand presence that gives them a local advantage, obviating the need to venture into the international platform (Totonchi and Manshady, 2012).

This section reviewed the growth of e-commerce in Australia and found that consumers' increased confidence in online shopping may have negative impact on shopping centre patronage especially during restricted retail trading hours due to shopping inconveniences. However, the influence of e-commerce on shopping centre patronage and the performance of SME during extended retail trading hours have not been clearly established yet.

## **2.8 Conclusion**

This chapter reviewed the spatial integration theory and the Technology Acceptance Model in order to investigate the impact of e-commerce on speciality stores in categorised shopping centres. The review of spatial interaction theory was mainly focussed on Huff's Gravity Model and the RASTT Model. These models indicate that besides size, distance and the presence of competitors, consumers' spatial behaviour is influenced by retail trading hours and usage of e-commerce. However, these factors were reliable in predicting the overall performance of the shopping centre but not so much for the speciality stores. The literature review indicated consumer browsing behaviour is vital for the success of the speciality stores. Hence, consumer browsing behaviour factor was integrated and considered as the dependent variable for this study. Furthermore, the Huff Gravity Model was selected for predicting consumers'

choice of shopping centre because it is flexible and can integrate the behavioural dynamics.

A conceptual framework of the interrelationships between i) consumer in-store browsing behaviour; ii) Huff's Gravity Model; iii) The Technology Acceptance Model; and iv) Retail trading hours, was developed. The model highlights the social and economic consequences and outcomes of extended retail trading hours on speciality stores in categorised shopping centres. Since, the literature review indicates that the existing theories and empirical studies are yet to identify the impact of e-commerce on speciality stores during extended retail trading hours. Choice overload and inconvenience in seeking customer assistance was considered as the possible reasons for consumers to prefer extended retail trading hours.

The Huff Gravity Model and TAM are combined to examine the impact of e-commerce on consumers' choice of shopping centre and in-store browsing behaviour. The Huff Gravity Model has been previously utilised to discern consumer shopping centre patronage, while, TAM has been used to measure consumer acceptance of e-commerce. However, these two models have never been combined to explain consumers' in-store browsing behaviour. The combination of these models aims to strengthen the prediction of consumers' shopping behaviour. This knowledge can assist SME retailers and shopping centre managers in terms of leasing strategy and in attracting consumers to engage in browsing activity.

Based on the literature review and the conceptual framework developed in this study, Table 2 presents the measurable variables for quantifying i) choice overload; ii) The Technology Acceptance Model; iii) customer assistance during restricted trading hours; iv) Huff's Gravity Model; v) elements inducing in-store browsing behaviour; and vi) consumers' in-store browsing behaviour. By using these variables, this study aims to address the research questions outlined in Chapter 1. The validity of these latent constructs was examined with Confirmatory Factor Analysis (CFA), and this will be further discussed in Chapter 3, Research Methodology. The Latent variables model consists of independent, mediating and dependent variables. Independent variables are those variables that cause an effect on another variable and can be controlled in an experiment while the dependent variables are those variables that react to the

changes in predictor or independent variables (Elliot, Fairweather, Olsen, and Pampaka, 2016). “A mediating variable is intermediate in the causal sequence relating an independent variable to a dependent variable, such that the independent variable causes the mediating variable that causes the dependent variable” (Mackinnon, 2015, p. 64).

Table 2: Latent variables model

Latent variables	Measurable variables	Variable Type	References
Choice overload	Perceived level of visibility of speciality stores at regional shopping centre	Independent	(Chernev et al., 2015; Messner and Wänke, 2011; Townsend and Kahn, 2014)
	Perceived level of visibility of speciality stores at neighbourhood shopping centre		
	Frequency of impulse purchase		
Technology Acceptance Model (TAM)	Perceived level of trust in online shopping for speciality products	Independent	(Grabner-Kräuter, 2003; Klein and Ford, 2003; Weltevreden, 2007)
	Frequency of online product comparison for speciality products prior to purchasing in-store		
	Frequency of shopping centre visits with pre-determined purchase objective		
Customer assistance during restricted trading hours	Perceived level of shopping inconvenience due to shorter trading hours of the speciality stores	Independent	(Goodman and Remaud, 2015; Huddleston and Huddleston, 2010; SafeWork, 2013)
	Frequency of customer assistance required when shopping for speciality products in-store		
	Frequency of online purchases due to limited trading hours of the speciality stores		

Huff Gravity Model	Perceived level of preference for shopping on days offering extended trading hours	Independent	(Baker, 2002; Baker and Wood, 2010; Goodman and Remaud, 2015; SafeWork, 2013)
	Perceived level of importance of distance to shopping centre when shopping for speciality products		
	Frequency of shopping visit to regional/subregional/neighbourhood shopping centre during extended trading hours		
Elements enhancing in-store browsing	Availability of variety of products	Mediating	(Bloch, 1982; Goodman and Remaud, 2015; Jarboe and McDaniel, 1987)
	Presence of preferred store/brand		
Consumer in-store browsing behaviour	In-store browsing time spent during goal oriented shopping visits	Dependent	(Bloch and Richins, 1983; Jarboe and McDaniel, 1987; Xia, 2010)
	In-store browsing time spent during recreational shopping visits		

Chapter 3 presents the research methodology that was employed to address the research objectives.

## **Chapter 3 Research Methodology**

### **3.1 Introduction**

The aim of this chapter is to outline the research methodology utilised to address the research questions and objectives. This chapter is divided into seven sections. Section 3.1 presents the introduction of chapter 3.

Section 3.2 presents the mixed method. The inferences drawn from the qualitative method can be examined with the larger population by using a quantitative method, while offsetting the weakness inherent in using each approach alone (Stewart et al., 2009). This section also provides justification for the selection of the case study location. The case study was focussed on a particular geographical area where the three categories of shopping centres that the researcher intends to investigate were located.

Section 3.3 discusses the design and justification of the qualitative data collection method. Two focus group discussions were carried out with one group of 8 and one group of 4 participants. The size of the groups meant that inferences drawn from the focus groups were to some extent difficult to generalise to the larger population (Wolff, Knodel, and Sittitrai, 1993). However, the size of the groups allowed all participants to have their say in a less crowded and inclusive atmosphere.

Section 3.4 presents the design of the personal interview method. After transcribing the responses from the two focus group discussions, the results were discussed in a personal interview with one shopping centre manager who was located within the case study trade area.

Section 3.5 discusses the design and justification of the quantitative data collection method. A questionnaire survey with a minimum target of 270 responses was undertaken concurrently with the qualitative data collection. The survey was conducted continuously for 24 days and achieved 287 error free responses.

Section 3.6 indicates the various limitations of this research design and Section 3.7 concludes chapter 3 by summarising the overall research design.

### **3.2 Mixed method**

A mixed method (i.e., combining qualitative and quantitative) research approach was used to collect the data in the current research. According to Johnson, Onwuegbuzie, and Turner (2007, p. 123) “Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches for the broad purposes of understanding and corroboration”. A mixed method adopts both practical and philosophical aspects in solving a problem and this paradigm is recognised as pragmatism (Morgan, 2014).

In the current study, a single case study was carried out to achieve the objectives. Flyvbjerg (2006) states that a single case study is usually effective and sufficient in generalising the outcome to a larger population, especially in the field of social science. Furthermore, the mixed method approach is also effective in supporting the generalisation of the research outcomes from a single case study to a larger population (Flyvbjerg, 2006). Hence, the main reason for selecting a mixed method in the current research was to conduct methodological triangulation.

The mixed method research approach in the current study adopts a ‘concurrent design’, also known as ‘triangulation design’, where both quantitative and qualitative data have equal weightage when interpreting the results (Creswell and Clark, 2018). Clark and Ivankova (2016) found that a concurrent mixed method research approach was most suitable when a researcher intends to achieve triangulation. According to the concurrent design, “The data collection involves both qualitative and quantitative data at roughly the same time, analysing the two databases separately, and then merging or comparing the results from the two databases” (Creswell and Clark, 2018, p. 187).

The qualitative data collection began with two focus group discussions followed by a personal interview with a shopping centre manager. At the same time, the quantitative data collection was conducted using a mall intercept method to collect the questionnaire surveys. The surveyor was on hand to answer any questions. A combination of focus group discussions and questionnaire survey methods has been validated by various researchers in examining consumer behaviour and attitudes, especially in the field of social science and marketing (Bryman and Bell, 2015; Carroll, Barnes, Scornavacca, and Fletcher, 2007; Stewart and Shamdasani, 2014; Wolff et al.,

1993). Furthermore, the current study recruited different participants to obtain qualitative and quantitative data, thus ensuring that the data were derived from independent sources (Creswell and Clark, 2018). Section 3.2.1 presents detailed information of the case study undertaken in the current research.

### **3.2.1 Description of the case study**

The aim of this thesis was to identify the impact of e-commerce on speciality stores in categorised shopping centres. In order to achieve the study's objective, a case study was carried out in a specific geographical location comprising three categories of shopping centres that had an overlapping trade area. Shopping centres were categorised as regional, sub-regional and neighbourhood shopping centres (see Chapter 1). In line with ethical research practice, the categories, i.e., regional, sub-regional and neighbourhood shopping centres were used instead of the original name of the shopping centres to de-identify them. This section provides justification for the selection of Brisbane City and the sub-regional shopping centre trade area as a suitable case study for this research.

There are 16 regional, 68 sub-regional and 270 neighbourhood shopping centres in Queensland (URBIS, 2015). The 354 shopping centres in Queensland account for more than 24 per cent of the total shopping centres in Australia (URBIS, 2015). There are 13,165 speciality stores located in these 354 Queensland shopping centres, accounting for more than 24 percent of speciality stores within shopping centres in Australia (URBIS, 2015). URBIS publishes shopping centres performance reports by state. Therefore, the above figures are representative of the shopping centres located in Queensland including Brisbane. Brisbane (i.e., city boundary as defined in terms of local government area) is the largest city in Queensland and the third most populous city in Australia with an approximate population of one million (Australian Bureau of Statistics, n.d.).

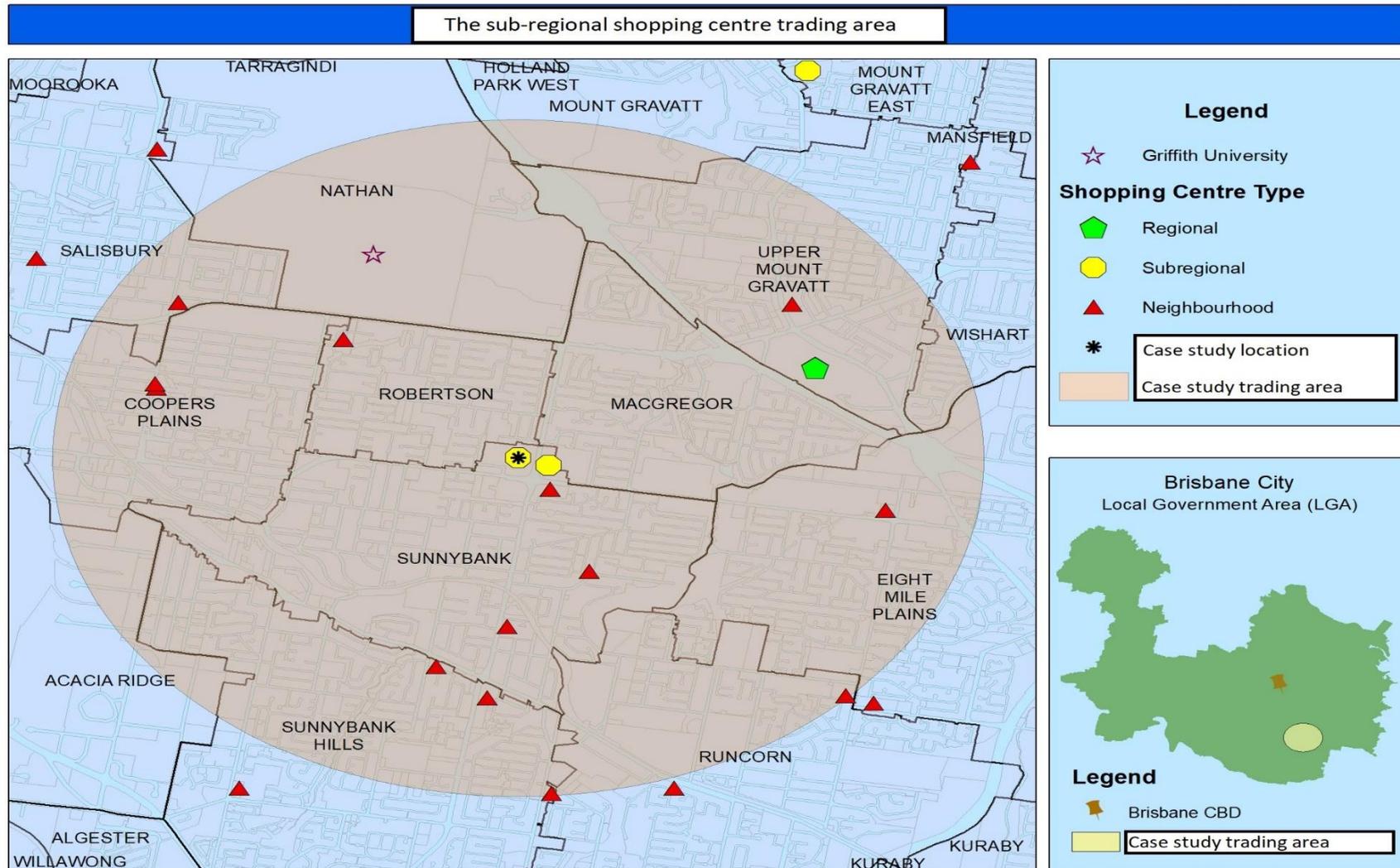
In Queensland the retail trading hours are regulated by the *Trading (Allowable Hours) Act 1990* whereby the retailers are allowed to trade within a certain time frame (e.g., trading between 9AM to 5PM) (Business Queensland, 2017). In 2017 the Queensland Government made amendments to the *Trading (Allowable Hours) Act 1990* by partially deregulating the trading hours, especially within Brisbane City in order to facilitate

shopping convenience for consumers' (Queensland Parliament Finance and Administrative Committee, 2017). Coupled with these conditions, Queensland experienced the highest growth rate of online shopping in 2018 compared to other states in Australia (Australia Post, 2018). Thus, conducting the case study in Brisbane provides an opportunity to investigate the significance of the recent changes in the trading hours concerning the performance of the independent SME retailers within the shopping centre.

The case study was carried out in one of the sub-regional shopping centres located in a suburban area in Brisbane. The sub-regional shopping centre was suitable as a case study for this research because the trade area comprised a regional shopping centre, two sub-regional shopping centres and various neighbourhood shopping centres (see Figure 9). The trade area for the sub-regional shopping centre was calculated to be 3km, as suggested by Yang (2002). According to Yang (2002) residents tend to have high spatial dependence within a 3km range irrespective of their mode of transportation (i.e., walking, cycling, private car, etc.). Spatial dependence is "The propensity for nearby locations to influence each other and to possess similar attributes" (Goodchild, 1992, p. 33).

Two sub-regional shopping centres owned by one company locates adjacent to each other at Sunnybank with the same market orientation. Hence it is considered as a single entity with a motive of business expansion. Still, the combined size of the two sub-regional shopping centres is much smaller than the defined size of a regional shopping centre (GLA of 50,000m<sup>2</sup>) (Retail First, n.d.).

Figure 9: Map of research area



Source: (Queensland Government, 2018)

The sub-regional shopping centre in this research is recognised for its diversity of restaurants. These restaurants predominantly specialise in Asian cuisine and serve as the core attraction for the sub-regional shopping centre. Out of 136 stores, the shopping centre is comprised of 47 retailers dealing with various services (e.g., hair salons, banks, movie theatre, massage therapy), 56 retailers are primarily food oriented and eateries, there are 6 types of discount department and supermarket stores (e.g., Coles, Kmart) and 29 independent SME speciality retailers (Retail First, n.d.). Thus, this sub-regional shopping centre has more retailers providing services than selling products. According to Anselmsson (2016), service based retailers were relevant for high footfall but had no significant influence in terms of increasing sales within shopping centres.

The regional shopping centre located within the trade area of the case study is home to a range of well-known brands from domestic (i.e., Kmart, Myer etc.) to international (i.e., H&M, Nike etc.) retailers, which deal with both fashion and non-fashion products. There are approximately 126 stores related to fashion products (Westfield, n.d.). Neighbourhood shopping centres are usually more needs based oriented (i.e., grocery, pharmaceutical, liquor, etc.). The neighbourhood shopping centres located within the case study trade area has stores that specialise in groceries, pharmaceutical products, take away food, liquor, acupuncture and herbal medicine, but there are no stores related to fashion products (Eight Mile Plains, n.d.). Table 3 below, presents the core attractions of the regional, sub-regional and neighbourhood shopping centres within the case study trade area.

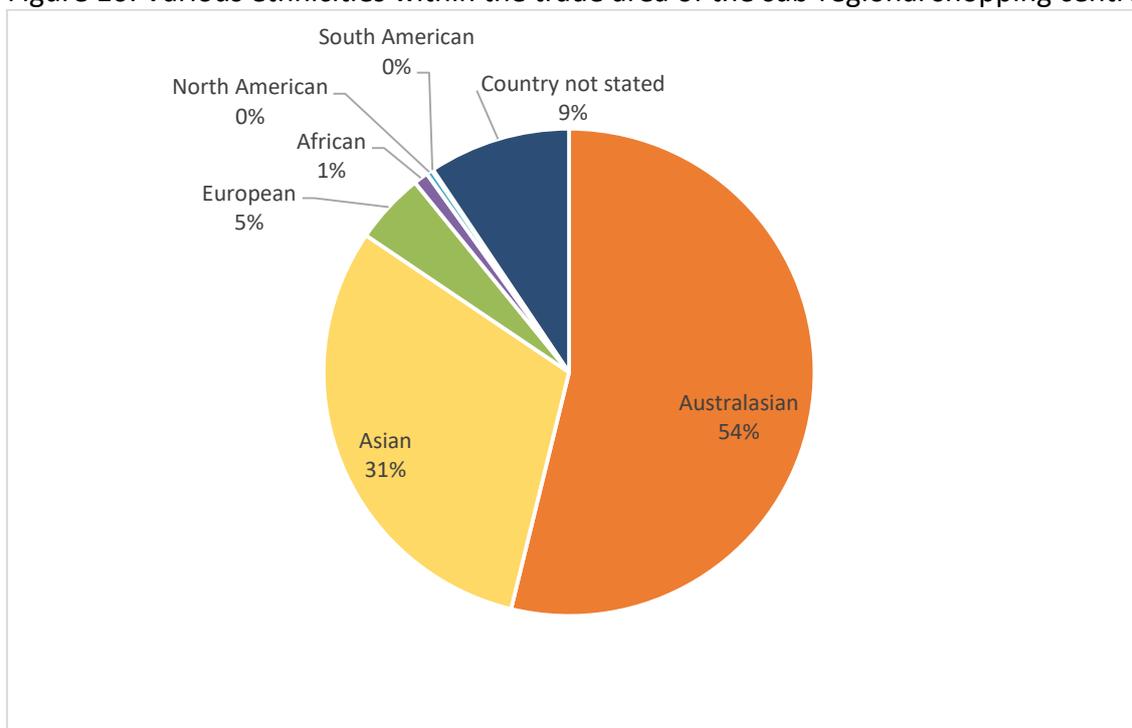
Table 3: Core attraction of categorised shopping centres in case study

<b>Shopping centre category</b>	<b>Core attraction</b>	<b>No. of retailers</b>	<b>No. of car parks</b>
Regional	Availability of variety of products and renowned brands	413	6254
Sub-regional	Specialises in Asian foods and restaurants	136	1850
Neighbourhood	Proximity	27	Approx. 200

Source: (Retail First, n.d.; Eight Mile Plains, n.d.; Westfield, n.d.)

One major factor facilitating the high proportion of restaurants at the sub-regional shopping centre in this study is the presence of a large residential Asian community within the trade area. Figure 10 depicts the different ethnic groups (according to continent) residing within the case study trade area. Anecdotally, trading hours in most Asian countries shops open later and tend to stay open during late evening hours seven days a week. Therefore, the presence of large Asian communities within the trade area provides an opportunity to identify the demand for increasing the frequency of extended trading hours.

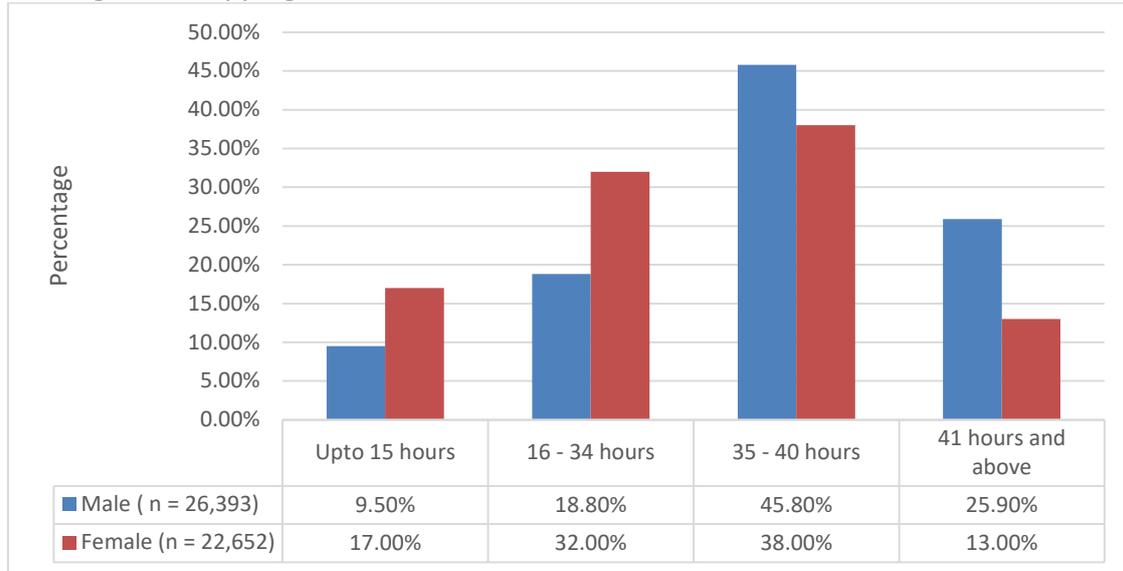
Figure 10: Various ethnicities within the trade area of the sub-regional shopping centre



Source: (Australian Bureau of Statistics, 2016b)

The main aim of extended trading hours is to provide flexibility for shoppers, especially those who are employed. Therefore, the 'working hours' of employed individuals is taken into consideration in identifying the possible demand for extended trading hours on weekdays. Figure 11 indicates 29,889 of the employed males and females reside within the case study trading area, work at least 35 hours a week (Australian Bureau of Statistics, 2016b). A total population of 124,936 resides within the trading area of the case study (Australian Bureau of Statistics, 2016b).

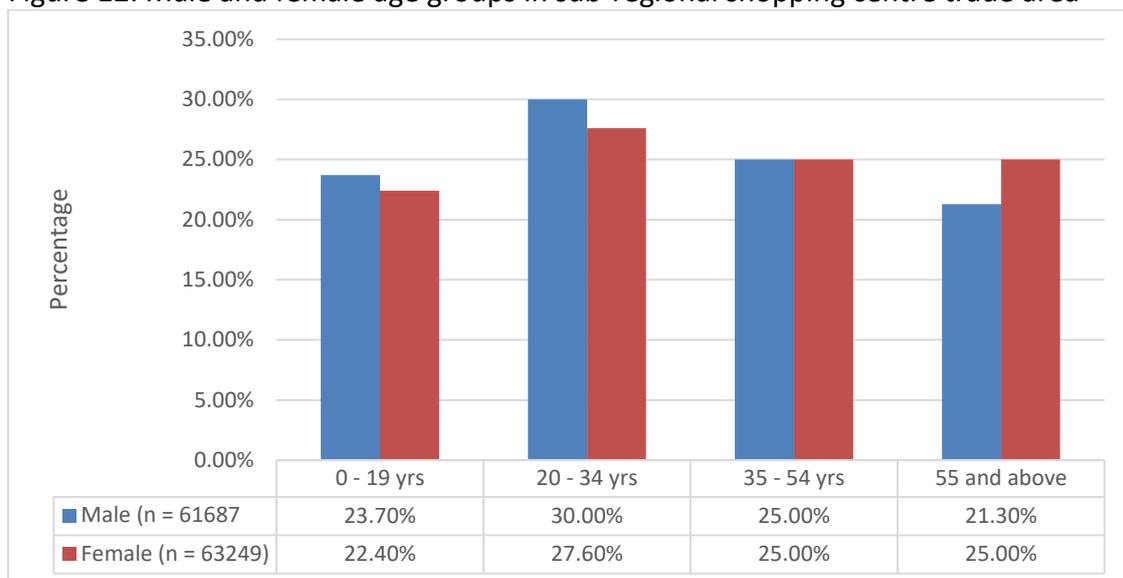
Figure 11: Total number of weekly hours worked by male and female residents of the sub-regional shopping centre trade area



Source: (Australian Bureau of Statistics, 2016b)

The case study trade area also includes a high percentage of young adults (19 to 34 years), evident in Figure 12. Previous studies have associated higher frequency of in-store browsing with young adults (Xia, 2010). However, this cohort are also seen as being tech savvy (Valentine and Powers, 2013) and may have reduced relevance in terms of profitability of shopping centres as they become increasingly confident in online shopping. Hence, this case study will identify the influence of e-commerce on the in-store browsing behaviour, especially amongst young adult shoppers.

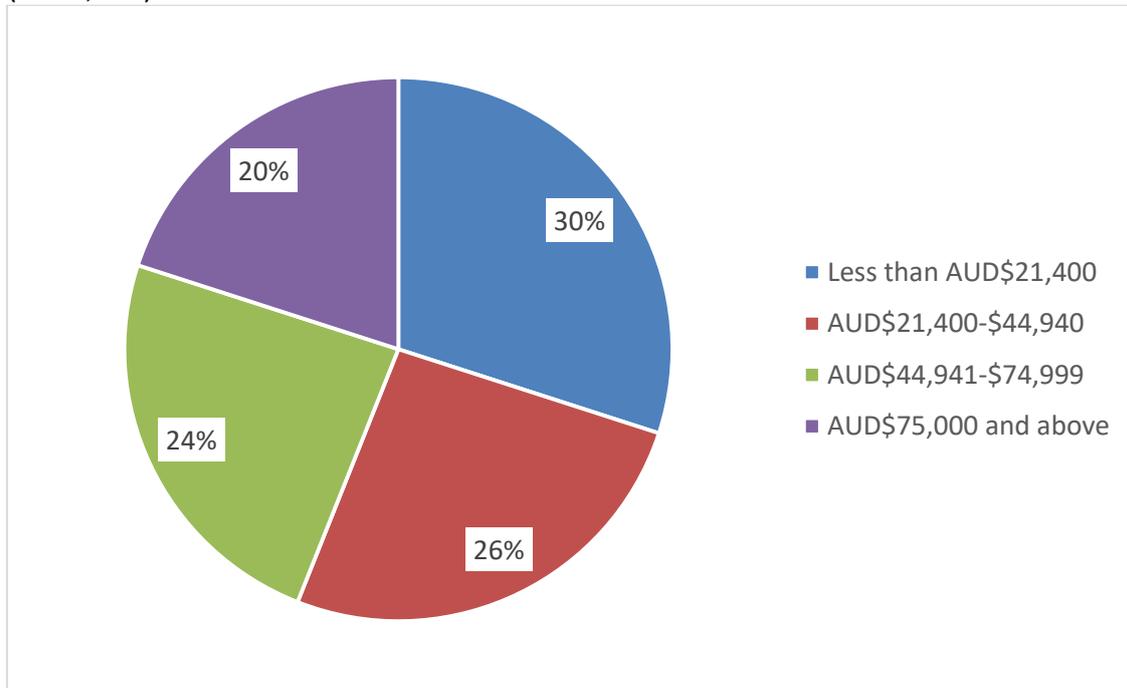
Figure 12: Male and female age groups in sub-regional shopping centre trade area



Source: (Australian Bureau of Statistics, 2016b)

The average annual income of the residents in the sub-regional shopping centre trade area is AUD\$49,994 (Australian Bureau of Statistics, 2016b). However, as evident in Figure 13 there is significant variance in income levels of those residing within the case study trade area.

Figure 13: Individual income level in sub-regional shopping centre trade area (N=49,596)



Source: (Australian Bureau of Statistics, 2016a)

Besides the popularity of Asian food and the presence of large Asian communities, several campuses of Griffith University, a well-known institution educating both national and international students, are located within the trading area. Griffith University regularly hosts international visitors, students and their family members who often choose to reside close to the university. Extended trading hours would enable international visitors, who are likely to be students and mostly young adults, to engage in social and in-store browsing activities.

Thus, the sub-regional shopping centre trade area is a good fit as a case study for the current research objectives. The data for this case study was collected using two focus group discussions, one personal interview and questionnaire surveys. Section 3.3 discusses the focus group discussion and personal interview method adopted to gather qualitative data for the case study.

### **3.3 Focus group discussions**

A focus group is a collective activity or interaction where a researcher selects a group of relatively homogeneous individuals to discuss a particular topic to generate information based on the participant's personal experiences (Powell and Single, 1996). The current study organised two focus group discussions in order to understand the perceptions of consumers towards e-commerce and shopping centres. Questions were centred around consumers' browsing behaviour in a shopping centre, with an emphasis on the effect on in-store browsing and/or purchasing in independent speciality stores. The focus group discussions were aimed at discerning consumers' shopping behaviour on days offering extended trading hours. Therefore, this section explains the recruitment process for the focus groups, the design of the questions, the manner in which the focus groups were conducted, recording and analysis of the responses/data and the reasons for limiting the focus groups to two in this study.

As focus group discussions cannot be generalised to a larger population, Stewart and Shamdasani (2014) found convenience sampling to be the most common form of recruitment. Convenience sampling enables participants to be recruited on a 'first-come-first-serve-basis', based on the eligibility and requirements of the focus group (Robinson, 2014). Participants in the current study were recruited through local contacts (e.g., advertisement on the university campus and in churches and shopping centres) as part of the convenience sampling process (non-probability sampling). The recruitment process for the focus group discussions was limited to the location of the case study in order to achieve geographical homogeneity (Robinson, 2014).

This study adopts a concurrent mixed method research approach in order to achieve methodological triangulation (as mentioned above in Section 3.2). Therefore, the design and recruitment process for the focus group discussions was determined and carried out only after receiving approval to undertake the case study (i.e., permission to conduct the survey) at the sub-regional shopping centre. The focus group discussion was organised at Griffith University. Specific criteria were utilised to recruit participants for the focus group discussions. For example, the participants consisted of individuals who resided only within the case study trade area and who had recent (within 6 months) shopping experiences in all the three categories of shopping centres

located within the sub-regional shopping centre trade area. Participants were also limited to two age groups: young adults (18 to 34) and middle aged (35 to 54), as they are the major online shoppers (National Australia Bank, 2016).

Gill, Stewart, Treasure, and Chadwick (2008) suggested that the way focus group participants interact with each other is more important than the composition of the focus group (e.g., age, gender) in deriving meaningful information. Therefore, the focus groups discussions were organised face to face, as the catchment area of the sub-regional shopping centre comprised a large international community. In this context, the face-to-face discussions were more beneficial than online discussions as they helped the non-English speakers (i.e., English was the second language for the participant) to communicate and to express their opinions more effectively (Irvine, Drew, and Sainsbury, 2013). Some participants were recruited temporarily to lead the discussion. Nyumba, Wilson, Derrick, and Mukherjee (2018) stated that participants are more likely to feel comfortable in expressing different opinions when one of the participants leads the discussion. Besides recruiting some participants to lead the discussion in the current study, one researcher was also present at the discussion room as an independent moderator.

Galvin (2015) and Romney, Weller, and Batchelder (1986) recommended a minimum of four individuals in a focus group in order to illicit sufficient discussion and a wide range of views. Fern (1982) suggested that two groups with four participants each yielded better quality information in comparison to eight participants in a single focus group, given they have high knowledge about the topic. Galvin (2015) found similar outcomes when the result derived from four knowledgeable participants was compared with eleven participants with average knowledge. The current research employed two focus groups. The first focus group comprised four participants (two males and two females) and the second focus group consisted of eight participants (two males and six females). Table 4 provides an overview of the focus group participants' socio-demographic profiles and a unique identification number that has been used to reference the voices of the focus group participants.

The majority of the focus group participants were young adults, mostly female (see Table 4). The presence of more young than middle aged adults and mostly female

participants reflected the general Australian population who frequently visit shopping centres (Ravi and Pascale, 2008). Furthermore, presence of a public university within the trading area of the case study is one of the reasons for higher participation by young adults who are students in the focus groups discussion.

Table 4: Socio-demographic profile of focus group participants

	<b>Participants unique ID/code</b>	<b>Gender</b>	<b>Age group</b>	<b>Occupation status</b>
Focus group 1	R1	Male	Young adult	Student
	R2	Male	Young adult	Employed full-time
	R3	Female	Young adult	Student
	R4	Female	Middle age group	Student
	R5	Female	Middle age group	Employed part-time
	R6	Female	Young adult	Student
	R7	Female	Young adult	Employed part-time
	R8	Female	Young adult	Employed full-time
Focus group 2	R9	Male	Young adult	Employed-fulltime
	R10	Male	Middle age group	Employed fulltime
	R11	Female	Young adult	Student
	R12	Female	Young adult	Employed part-time

The number of focus groups is also dependent on the ‘point of saturation’ (Galvin, 2015; Guest, Namey, and McKenna, 2017). Guest et al. (2017) suggested that the complexity of the study determines the number of focus groups to be organised, however, two focus group discussions are usually sufficient for topics that are general (e.g., describing personal experiences). Similarly, Stewart and Shamdasani (2014) suggest that a single group or two groups will provide sufficient information on topics that are considered very simple. Carlsen and Glenton (2011) observed that most mixed methods studies adopted a single focus group. The current study followed Guest et al’s

(2017) suggestion and carried out two focus group discussions on different occasions (8<sup>th</sup> December 2016 and 11<sup>th</sup> January 2017). The focus group discussions began at 6.00pm and were organised at Griffith University. This time was selected as it was more feasible for those participants who worked full-time. Stewart, Shamdasani, and Rook (2007) suggested that a focus group discussion needs to adhere to a given time or participants might become hostile. In addition, Nyumba et al. (2018) reported that the total time taken to conduct a focus group discussion in general, should be 90 minutes. Therefore, the focus groups in the current research were limited to 90 minutes.

The main aim of the focus group discussions was to explore the underlying themes of this research. Therefore, a semi-structured question guide framed the discussion. The semi-structured questions were framed according to the independent; mediating; and dependent variables derived through the literature review (see Table 5).

Table 5: Independent, mediating and dependent variables of this research

<b>Independent variables</b>	<b>Mediating variables</b>	<b>Dependent variables</b>	<b>Source</b>
Restricted retail trading hours	Availability of variety of products	Choice overload	(Haynes, 2009)
Distance to the shopping centre	Ease of access	Time spent browsing in stores	(Earl and Potts, 2000)
Size of the shopping centre	Frequency of overall shopping centre visits in a week	One-stop shopping	(Shy and Stenbacka, 2008)
In-store browsing	Frequency of recreational shopping centre visits in a week	Preference for shopping during extended trading hours	(Baker, 2006)
Visit shopping centre with pre-determined	Time minimisation	Shopping convenience	(Klein and Ford, 2003)

purchase objective			
Compare products online prior to purchasing in-store	Preferred store/brand	Frequency of impulse purchase in store	(Weltevreden, 2007)
Trust in online transaction	Price of the product	Frequency of online purchases due to limited trading hours of the shopping centres	(Hsiao, 2009)

The questions for the focus group discussions were designed based on Stewart et al's (2007) typology of focus group questions (see Table 6). The structure of the questions adopted the funnel approach. According to Stewart et al. (2007) the funnel approach enhances the rapport amongst the participants by discussing a broad general topic in the initial stage of the discussion process, followed by specific questions related to the objective of the focus group. Prior to the focus group discussions, the participants were provided with an information sheet detailing the nature and objective of the discussions (see Appendix 2), along with examples of some important questions that would be discussed. The key terms, 'independent speciality store', 'the three categories of shopping centres' and 'in-store browsing' were clarified before the commencement of the focus groups discussions.

Table 6: Typology of focus group questions

<b>Type of questions</b>	<b>Purpose</b>	<b>Examples of questions used in the focus groups discussion</b>
Main research question	Specifies the main focus of the discussion	How does the opening hours of the shopping centre affect your daily shopping and browsing activities within a shopping centre?
Leading question	Getting deeper ideas and perceptions of the participants	What are the reasons why you visit a shopping centre?
Testing question	Test the ideas and perceptions of the participants	How would you describe your in-store browsing behaviour at regional, sub-regional and neighbourhood shopping

		centres?
Steering question	Steering the group back to the main agenda of the discussion after testing the perceptions and ideas of the group	Which category of shopping centre do you consider most favourable for browsing speciality stores? (example of closed-ended questions)
Obtuse question	This question is introduced to generate differences in the opinions of the participants	Why do you feel this particular shopping centre is more favourable for browsing speciality stores? (example of open-ended questions)
Factual question	This is employed to ease tension when participants argue inconclusively	How important is the ease of access in getting to the shopping centre?
'Feel' question	Individual participants are given the opportunity to express their own experiences	Consider the following situation: you need to purchase a speciality product and you have already determined the brand and the type of speciality product to purchase. Will you still visit a shopping centre with numerous options to choose from, or will you visit the nearest shopping centre where the product is available, regardless of limited or few options to compare the products with other brands?

Source: (Stewart et al., 2007)

All discussions were digitally voice recorded as well as visually video recorded and fully transcribed, and each statement was attributed to an individual person so that it could be related to the participant's demographic profile. In order to achieve reliable data, the various elements, as highlighted by Stewart and Shamdasani (2014), were taken into consideration (see Table 7). In Table 7, Columns 1 and 2 reflect Stewart and Shamdasani (2014) elements, while Column 3 describes how each element was experienced during the focus groups in the current study.

Table 7: The fourteen elements affecting the efficiency of the focus group discussion

Element	Impact on the focus group discussion	How the elements were addressed in this research
1. Demographic factors	<p><b>Gender:</b> Male participants tend to be more aggressive than female participants</p> <p><b>Conformity:</b> Uniformity in a group interaction can be achieved by having different age groups.</p> <p><b>Socioeconomic status:</b> Differences in income level or education level or cultural difference are likely to influence the group interaction</p>	<p>The presence of the moderator in the focus group discussion ensured that both male and female participants had the opportunity to express their opinions freely.</p> <p>Both focus groups included young adults and middle-aged participants to maintain conformity in the group discussion.</p> <p>The first focus group comprised four members who were temporary residents (i.e., international) and four members who were citizens and born in Australia. All of the participants in the second group were citizens and born in Australia, thus maintaining a balance in cultural backgrounds (i.e., in terms of international and national residents).</p>
2. Physical characteristics	<p>The opinion of an individual who is attractive in terms of physical appearance is more likely to be accepted by the majority of the participants. Clothing style was observed to be a less</p>	<p>The choice of dressing style highlighted the importance given to fashion by all individual participants, and this could be related to their shopping behaviour.</p>

	significant influence on the focus group participants.	The moderator also ensured that all participants were able to provide their opinions. All opinions were equally emphasised if they were highly relevant to the discussion.
3. Personality	<p><b>Interpersonal orientation:</b> Avoidance/approach behaviour of an individual in a group discussion</p> <p><b>Social sensitivity:</b> Ability to interact in a sensible manner</p> <p><b>Ascendant tendencies:</b> The likelihood of an individual to dominate the opinions of the group</p> <p><b>Dependability:</b> An individual's consciousness of one's acts is more desirable in a group discussion</p> <p><b>Emotional stability:</b> Emotional outburst may occur due to heated argument</p>	The moderator was on hand to manage the discussion and ensure that respondents stayed focused on the topic.
4. Interpersonal influences	An individual who is concerned with what other people think of his/her opinion is less likely to participate in the discussion effectively.	The moderator ensured that all participants were able to put forward their opinion. Opinions of participants were praised when required.
5. Group cohesiveness	Focus group discussions are organised for a short duration (i.e., 1-2 hours maximum), so participants usually disregard working as a	Occasional interventions by the moderator can assist in maintaining group cohesiveness. The objective and goals were well defined to ensure

	group in achieving the objectives of the discussion. The demographic factors also influence group cohesiveness.	group cohesiveness. The moderator also ensured that the participants had an enjoyable experience to increase group cohesiveness.
6. Group compatibility	Group compatibility was influenced by the composition of the group based on gender. A mixed sex group was more effective in producing a solution for a given problem than a same sex group.	The two focus groups in this study included both male and female participants.
7. Social power	An individual's expertise and social status can be highly influential within the group. For example, the ideas of an expert who holds high status will be better viewed than an average person with lower social status.	The presence of an expert is necessary for the discussion to derive new ideas and findings. However, at different intervals the moderator intercepted and asked each participant, especially those who were missing out in the discussion, to provide their opinion on a particular question before getting into further discussion. Thus, the moderator ensured that each participant was involved in the discussion.
8. Group participation and nonverbal communication	The effectiveness of group participation can also be judged by the participants' nonverbal cues (i.e., smile, frustration, etc.).	The focus groups discussions were videotaped in order to record the nonverbal cues.
9. Environmental	The location where the focus group is to be held	The focus groups were well organised and were

influences	plays a significant role in the involvement of the participants. For example, a well-organised meeting room will be less likely to cause distraction for the focus group than a discussion held in an open environment (i.e., park, playground, etc.)	held in a meeting room at Griffith University, Nathan campus. Furthermore, the university campus is easily accessible by car and public transport and has large car parks.
10. The material environment	Small size meeting rooms tend to create intense discussion, which in turn, affects the participants in reaching a consensus. The availability of props and other artefacts that are not related to the research topic can affect the concentration of the focus group participants.	The size of the meeting room had enough space for at least ten participants and the room was cleared from all unnecessary props/items that might distract the participants. However, the focus groups discussions in the current research did not require any props.
11. Territoriality	The assignment of seats to participants in an orderly manner can diminish the chances of any internal conflicts between the participants.	The moderator assigned a specific seat to each participant on arrival.
12. Spatial arrangement	The central seat often tends to be the centre of attention and the person seated here asserts more dominance over the group.	The participants were made to sit across a table facing one another, thus eliminating the potential for one person to become the centre of attention.
13. Interpersonal distance	Interpersonal distance is more important when the participants are not well acquainted with each other.	There was enough space between the participants to avoid anyone feeling uncomfortable.

<p>14. Moderated groupings of strangers</p>	<p>Usually, the temporary nature of the focus group discussion does not prompt participants to become acquainted with each other. For example, when the group is comprised of strangers, building rapport between the participants during discussion is difficult. This in turn affects the effectiveness of the focus group discussion in reaching a consensus or in generating new ideas/solutions.</p>	<p>Before the start of the focus group discussion, participants were given 10 minutes to talk to each other. This was facilitated by the provision of drinks and snacks.</p>
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The results of the two focus groups were analysed using the 'cut and sort' technique (Stewart et al., 2009). This technique enables relevant codes (phrases/sentence) to be sorted and placed according to the theme/topic that relates to the research questions (Stewart et al., 2009). According to Stewart et al. (2009) the 'cut and sort' technique is very cost effective and less time consuming, however, there is potential for the analysis to suffer from bias as the judgement is derived by a single analyst. In order to reduce potential bias, the themes discussed with the focus groups were further examined in discussion with the sub-regional shopping centre manager through a semi-structured personal interview. Chioncel, Veen, Wildemeersch, and Jarvis (2003) suggested that the results generated after transcribing the responses of the focus group discussion should be discussed with the participants in person to increase the accuracy of how the data is being represented. However, due to the limitation of time and the difficulty of re-forming the focus groups, the results were not able to be discussed further with the participants.

Prior to commencing the focus group discussions the participants were asked to fill out and sign a consent form in order to comply with the ethical guidelines as specified by Griffith University (Griffith University reference no: 2016/455). The results were analysed with the help of computer software (Microsoft Excel) for analysis of unstructured data.

After the focus groups, a personal interview with the shopping centre manager was arranged. The purpose of this interview was to: a) expand on the thematic analysis of the focus groups; and b) identify any possible gaps between shopping centre strategy and consumers' expectations in relation to in-store browsing activities. Previous studies by Sobaih, Ritchie, and Jones (2012) and Lambert and Loiselle (2008) have also suggested that an in-depth personal interview with an expert (i.e., the shopping centre manager) should be organised after analysing the responses of the focus group discussions. There are two main reasons: 1) the process of setting up an interview with an expert is tedious, therefore when the interviewer is provided with an opportunity, the interview questions should be precise to generate error free data; and 2) it facilitates the integration of the focus groups and individual interview data. Lambert and Loiselle (2008) found that the integration of focus groups and individual interview data to be reliable only if the aim of the study was to achieve data triangulation and

not method triangulation. This supports the approach utilised in the current research, whereby the aim of the focus groups and the individual interview was to achieve data triangulation. Section 3.4 will further delineate the process of the in-person interview carried out in the current research.

### **3.4 In-person interview**

This section explains how the personal interview was conducted and provides justification for recruiting only one shopping centre manager. On receiving permission from the sub-regional shopping centre manager, a semi-structured personal interview was arranged on a specific date and time. The interview was held on 16<sup>th</sup> February 2017 at 10.00am. A semi-structured interview guide was developed based on the results derived from the focus groups. Turner III (2010) suggested that the personal interview should be mostly comprised of open-ended questions, as this enables the interviewee to express their opinion based on their experiences. This process enabled the shopping centre manager to add information to the existing themes (i.e., themes identified in the focus group discussions) which were not addressed in the original focus group discussions. The questions were designed based on the funnel approach.

The face-to-face personal interview took place in the sub-regional shopping centre administrative building. There are two benefits of a face-to-face interview: 1) it enables the interviewer to steer the level of involvement (rapport building) with the interviewee; and 2) it helps to acquire precise responses in the case of the interviewee or interviewer or both coming from a non-English speaking background (Irvine et al., 2013). Since the interviewer comes from a non-English speaking background, a face-to-face interview was a more appropriate interview option. The manager's responses were digitally recorded, transcribed verbatim and analysed using the 'cut and sort' technique to integrate the data with the focus group discussions.

Fetterman (2009) suggested that in-person interviews could be organised with one or two key actors in case of difficulties in recruitment and time constraints. Fetterman (2009) defines a key actor as someone who has high working knowledge within a group or an organisation. Hence, due to time constraints and the limited number of shopping centre experts within the sub-regional shopping centre trade area, the in-person interview was held with one key actor. Furthermore, this shopping centre

manager and his/her organisation also manages a number of shopping centres in this trade area and therefore his expertise was significant. Since there was only one manager, the unique identification code for this expert was allotted with the symbol (x). This will differentiate the responses of the focus group participants from the manager in the qualitative analysis chapter (Chapter 5).

Knox and Burkard (2009) raised the issue of trust and reliability between the interviewee and interviewer that may affect the quality of the information (i.e., the expert may avoid providing detailed information due to lack of trust). Bloom and Crabtree (2006) suggest that in semi-structured in-person interviews the interviewer needs to build rapport quickly with the interviewee to increase the level of involvement in the interview process. In order to facilitate trust and reliability between the interviewer and the interviewee, the sub-regional shopping centre was provided with an insurance policy from Griffith University on behalf of the interviewer (researcher) which covered any physical or reputational damage to the shopping centre caused by the interviewer. This gained the trust of the shopping centre manager and enabled the interviewer to derive rich information during the interview. Similarly to the focus groups, the manager was provided with an information sheet addressing the objective of the interview and examples of various questions that would be used in the interview process. The manager signed the ethical consent form acknowledging the successful completion of the interview process and adherence to the ethical guidelines specified by the Griffith University Human Research Ethics committee. Section 3.5 provides detailed information on the instruments (i.e., scales, sampling technique, etc.) used in the questionnaire survey.

### **3.5 Survey research method**

This section presents detailed information about the survey instruments employed in the current research and provides justification for the use of a mall intercept survey.

The collection of primary data can be initiated through personal interviews, telephone interviews, mall intercept surveys and self-administered questionnaires (including mail questionnaires, hand-delivered questionnaires, fax surveys, e-mail surveys, and internet surveys) (Dillman, Christian, and Smyth, 2014; Rice and Hancock, 2005). There are two methods of gathering survey data: (1) inviting individuals to answer questions

asked by interviewers; and (2) questionnaires (Earl, 2015). A mall intercept questionnaire-based survey was applied in the current research.

A questionnaire is an instrument used to collect primary data for statistical analysis (Earl, 2015). A questionnaire usually comprises a set of written questions, to which respondents record their answers (Earl, 2015). A mall intercept questionnaire-based survey was applied in the current research. In this method, the interviewer attempts to question the respondents at a central point within the shopping centre or at its entrance (Rice and Hancock, 2005). The advantage of the mall intercept method is that the researcher does not need to travel to each respondent's home, thus, reducing the cost and time of transportation. In addition, respondents are interviewed while focussed on the shopping centre and its attributes.

A computer assisted personal interviewing technique was used when conducting the mall intercept surveys. In computer assisted personal interviewing "the researcher conducts in person interviews, reads questions to the respondents off a computer screen, and directly keys the respondents' answers into the computer" (Lamb, Hair, and McDaniel, 2016, p. 158). Administering the survey via a computer is useful, as the interviewer does not have to maintain a separate data entry procedure. The disadvantage of using a computer in collecting survey data is that technical errors (e.g., a crash in a computer program) can put the researcher at risk of losing valuable data, time and effort. In this study, the researcher carried out the survey using a computer assisted personal interviewing technique to reduce the need for maintaining a separate data entry system.

#### *Justification for the data collection method*

The mall intercept survey method has been employed by previous researchers (Chebat, Sirgy, and Grzeskowiak, 2010; El Hedhli, Chebat, and Sirgy, 2013; Kuruvilla and Joshi, 2010) when researching shopping behaviour and consumers' choice of shopping centres. The mall intercept method was selected for this research for the following reasons:

1. The respondents are already in the identified shopping environment; therefore they are able to precisely relate their in-store browsing and shopping experiences and opinions of the shopping centre and e-commerce.

2. The interviewer is able to clarify the meaning of the questions to the respondents on the spot if any doubts arise and the completed responses can be gathered within a short period of time (Bush and Hair, 1985). This can lead to more complete and accurate data, and lower item non-response.
3. Through a mall intercept survey, a large number of respondents can be reached at a relatively low cost as they are commonly conducted in high traffic areas (Rice and Hancock, 2005). The study aimed to apply Confirmatory Factor Analysis, therefore, a sample size of N = 200 was considered as the minimum standard requirement to achieve reliability in the test result (Li, 2016) (see section 3.5.2 for estimation of sample size). Confirmatory Factor Analysis was employed to validate the constructs<sup>4</sup> derived from the literature review in the current study and is further discussed in Section 3.5.4.

#### *Limitations of mall intercept survey research method*

Although there are various advantages of the survey research method, some limitations exist. The accuracy of responses is dependent on the willingness of participants to answer truthfully and completely. The mall intercept method may also be subjected to certain bias, as most of the respondents willing to give their responses are likely to be hedonic<sup>5</sup> shoppers who spend more time in a shopping centre than utilitarian<sup>6</sup> shoppers (Nowell & Stanley, 1991).

In order to resolve these problems, the following two measures were adopted. Firstly, a pilot study was undertaken, and the feedback from this pre-test helped the researcher in reviewing the wording of questions. Secondly, as suggested by Nowell and Stanley (1991), the current study recorded respondents' frequency of weekly goal oriented and recreational shopping visits in order to balance the representation of both hedonic and utilitarian shoppers in the sample. Section 3.5.1 provides detailed information of the questionnaire design employed in the current research.

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<sup>4</sup> "Construct validity is the extent to which a set of measured variables actually represents the theoretical latent construct those variables is design to measure" (Hair, Black, Babin, and Anderson, 2014, p. 601).

<sup>5</sup> Hedonic shopping is the experience that is derived from the pleasure of shopping and does not have a specific purpose (Hirschman and Holbrook, 1982; Langrehr, 1991).

<sup>6</sup> Utilitarian shopping is the shopping experience that is derived by having a specific purpose for making a shopping trip and seeks to purchase the product in minimum time in order to satisfy the goal (Babin et al., 1994).

### **3.5.1 Questionnaire design**

Questionnaire design in survey research is very important. The questionnaire survey for this study was designed based on the variables derived from the literature review. This section has been divided into three sub sections, namely, 1) Question and response formats; 2) Level of scale measurements; and 3) Questions which explain the questionnaire design process. Each step will be discussed briefly.

#### *Question and response formats*

There are two major types of response formats: open-ended (unstructured) and closed (structured) (Earl, 2015). A closed-ended questionnaire was employed in this survey for a number of reasons. Closed-ended questionnaires limit the possible answers for a particular question. The respondent has to choose the most appropriate answer from the given options. Closed-ended questionnaires are conclusive in nature as they are designed to generate data, which is easily quantifiable. The information acquired through a closed-ended questionnaire measures the opinions of the respondents by using scales and is categorised into groups based on the options selected (Earl, 2015). Closed-ended questionnaires are suitable for collecting large sample sizes and therefore were employed in this study to survey consumers' preferred shopping destinations for speciality products and their in-store browsing activity. Closed-ended questionnaires also increase the reliability of the information obtained and reduce the disadvantages of a questionnaire survey (Earl, 2015), making it possible to collect more accurate information.

#### *Levels of scale measurement - closed-ended questionnaires*

The current research employed three levels of scale measurement: nominal, ordinal and ratio. Each level is discussed below. A nominal scale uses numbers to label, classify or identify people without any quantitative value (Gravetter and Wallnau, 2016). Nominal scales are employed in the background section of the questionnaire to identify the respondents' gender and employment status. For example, '0' for male and '1' for female. Nominal scales were also used for questions related to mediating variables (see Table 8).

Table 8: Example of nominal scales for mediating variables used in this research questionnaire survey

Indicate your reasons for selecting a particular shopping destination for browsing activities				
Price	Availability of variety of products	Ease of access	Time saving	Preferred store/brand
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

An ordinal scale refers to quantities that have a natural ordering. This scale of measurement is capable of categorising information based on its magnitude (Gravetter and Wallnau, 2016). Weijters, Cabooter, and Schillewaert (2010) suggested that a 5-point ordinal scale is more suitable in acquiring responses from the general population, while a 7-point ordinal scale is suitable for specific target populations that have high cognitive skills. Furthermore, Lozano, García-Cueto, and Muñiz (2008) indicate that the results beyond a 7 point ordinal scale become incoherent, as the power to discriminate the subject is significantly reduced. Based upon the previous research findings, the questionnaire survey in this study employed the standard 5-point ordinal scale to measure the independent variables and dependent variables. Weijters et al. (2010) suggested that the response categories in the ordinal scale should be fully labelled (i.e., ‘Dislike a great deal’ – ‘Like a great deal’) in order to derive reliable data when developing a new scale. The response categories in the survey questions in the current study were fully labelled.

Various researchers (Feldman and Lynch, 1988; Rindfleisch, Malter, Ganesan, and Moorman, 2008) have determined the use of bipolar (independent variables) and unipolar scales (dependent variables) for enhancing the validity of the questionnaire survey results using ordinal scales (examples for bipolar and unipolar scales are presented in Table 9). According to Dillman et al. (2014, p. 151) “Unipolar scales measure gradation along one dimension where the zero point falls at one end of the scale”, while “Bipolar ordinal scales measure gradation along two opposite dimensions, with the zero point falling in the middle of the scale”. These researchers support the use of heterogeneous scales because there is a high probability of bias, as

respondents tend to provide similar answers throughout the questionnaire survey when the scale of the questions are kept constant/uniformed. Thus, the questionnaire survey in this research employed a heterogeneous (both bipolar and unipolar scales) 5-point ordinal scale.

Table 9: Examples of the 5-point ordinal scale used in the current research questionnaire survey

Type of variable	Types of ordinal scale	Examples of 5 point Likert scale				
Independent variable	Bipolar	Do you like or dislike browsing in shopping centres?				
		Dislike a great deal	Dislike somewhat	Neither dislike nor like	Like somewhat	Like a great deal
Dependent variable	Unipolar	How often do you visit the regional shopping centre during the weekday extended trading hours?				
		Never	Rarely	Sometimes	Most of the time	Always

A ratio scale has a true zero point when a given object is absent (Gravetter and Wallnau, 2016), similar to interval scales with the additional property that its zero position indicates the absence of the quantity being measured (Gravetter and Wallnau, 2016). A ratio scale was applied to investigate one of the dependent variables (i.e., time spent browsing for a particular product category in-store). For example, the respondents were asked to provide their in-store browsing time in minutes.

#### *Questions in the questionnaires*

To derive reliable responses from consumers, the questionnaires must be presented as simply and clearly as possible (Gravetter and Wallnau, 2016). Furthermore, shoppers are likely to get annoyed if the questionnaire survey is time consuming. Therefore, in order to obtain complete responses for all questions the questionnaire survey in the current study consisted of a total of 36 questions that could be answered in approximately 8 minutes.

Every question in the questionnaire was based on the variables derived through the literature review in Chapter 2. There were two sections to the questionnaire. Questions in the first section aimed to identify consumers' preferred shopping destination for browsing speciality products, in-store browsing behaviour, visibility of speciality stores in, and frequency of shopping visits to categorised shopping centres during weekday extended trading hours. This section included six variables: the Technology Acceptance Model (TAM); mediating variables (e.g., ease of access, time saving); consumer browsing behaviour (e.g., in-store browsing time); Huff's Gravity Model; choice overload; and customer assistance during restricted trading hours.

Furthermore, as discussed in Chapter 2, Section 2.5, consumer in-store browsing behaviour in this study is controlled by social cognition (i.e., warmth and competence) in order to generalise the effect of in-store browsing behaviour on speciality stores. Therefore, respondents' browsing behaviour was associated with their most preferred product category for browsing in-store.

The product categories (listed in Table 10) were based upon the online shopping report published by the National Australia Bank (2016). Thus, survey respondents were asked to select a particular product category that they were most interested in browsing in-store. The product categories were adjusted slightly to assist respondents' comprehension (i.e., toys and electronics were listed as different product categories in this questionnaire survey).

Table 10: List of product categories and sources of information

<b>Product categories</b>	<b>Sources of information</b>
Fashion (apparel, clothing, bags, shoes)	Google or online search
Personal goods (cosmetics, shampoo, health related products)	Browsing in a shopping centre
Liquor	Word of mouth
Furniture	Social media
Sports goods	Press
Electronics and appliances	Advertisement
Books and DVDs	Article or blog post
Homewares	
Takeaway food	

Bloch (1982) and Xia (2010) also concluded that shoppers often browse for products to acquire information for future purchases, rather than for immediate consumption, especially speciality products. Therefore, after selecting a particular product category for browsing in-store (see Table 10, above) respondents were also asked to rank the various sources of information they would use in obtaining the information for the selected product category.

In terms of shopping destination, participants were given five options to choose from. The five options were, 1) regional shopping centre, 2) sub-regional shopping centre, 3) neighbourhood shopping centre, 4) online shopping, and 5) other centres (see terminology Chapter 1, Section 1.4). Participants were asked to select only one option of where they would prefer to browse for their most preferred speciality product.

In terms of store type, participants were given three options. The three options were, 1) discount department stores (see terminology Chapter 1, Section 1.4), 2) independent speciality stores, and 3) no preference. Since one of the aims of this thesis was to investigate the relevance of extended trading hours for independent SME retailers, the independent specialty stores were compared with discount department stores. Discount department stores such as Kmart and Target were selected because they were allowed to trade for longer hours throughout the week than other store types (i.e., department stores such as Myer) (Retail First, n.d.; Business Queensland, 2017; Westfield, n.d.). Participants were asked to select only one option for where they were likely to purchase their most preferred speciality product.

The second section provided the background information of respondents (e.g., demographic/socio-economic characteristics). According to Hernández et al. (2011) socio-economic variables have less power to determine individual's online shopping behaviour once they become experienced online users. However, respondent's age, employment status, income level and gender were recorded in this research questionnaire survey as Weber and Castillo (2010) found these variables to reveal different purposes for using online shopping. For example, males are more inclined

towards technology, while females would more frequently browse online for fashion goods.

The data from the questionnaire survey (see Appendix 10) was used to analyse the relationship between the five independent variables and one dependent variable (consumer in-store browsing). Section 3.5.2 explains the sampling design used in this research.

### **3.5.2 Sampling design**

The process of sampling is to collect data from a portion of a population as a basis for drawing conclusions about the whole population (Gravetter and Wallnau, 2016). Sampling is adopted when the size of the population is too large to survey in entirety (Dillman et al., 2014). The purpose of sampling is to estimate an unknown characteristic of a population (Earl, 2015). To cover the entire population of young adults and middle age groups visiting a shopping centre is not possible. Therefore, this section identifies the target population, design of the sample, sample size and pilot study.

#### *Target population*

The target population refers to the total group of individuals that the researchers wish to investigate (Dillman et al., 2014). Based on the literature review, browsing activity was observed to be highly significant amongst young shoppers who were considered to be crucial to the success of speciality stores in shopping centres (Jarboe and McDaniel, 1987; Xia, 2010). In addition, for shopping centres, the most significant age group influencing e-commerce purchases was observed to be the middle aged group. This age group was also shown to have time constraints while browsing within a shopping centre. Therefore, in the current study, the data collected from young adult and middle aged groups will generate relevant information in analysing the socio-economic impact of e-commerce on independent speciality stores. Hence, the target population in the current research consisted only of young adults and the middle age group visiting the three types of shopping centres (regional, sub-regional and neighbourhood centres) and residing within the case study trade area. According to the Australian Bureau of Statistics (September 2012) those aged 18 to 34 are

considered to be young adults and those aged 35 to 54 are regarded as middle aged (Australian Bureau of Statistics, January 2012).

#### *Selection of sampling design – stratified random sampling*

The mall intercept survey technique (which was employed in the current study to collect the questionnaire survey) is considered a non-probability sampling technique (i.e., convenience sampling) (Lavrakas, 2008). The main argument against using the mall intercept survey as a probability sampling technique is the difficulty in identifying sampling errors due to lack of a sampling frame (Lavrakas, 2008). The sampling frame is a list of all the elements in the population from which the sample is taken (Earl, 2015). However, various researchers have provided ways to identify the sampling errors for a mall intercept survey through identifying frequency of shopping visits (Nakanishi, 1978) and time based systematic sampling (Bruwer, Haydam, and Lin, 1996). Ericksen (2009, p. 3) asserts that “Mall intercept surveys are not probability samples, but their frequent use, along with the lack of plausible alternatives, creates a ‘Grey Area’ in the consideration of scientific standards”.

In the current study, the mall intercept survey was used as a probability sampling technique. For a mall intercept survey to satisfy the assumptions (i.e., estimating sampling error) of probability sampling, the sampling frame for the current case study was established using a Plot Area Frame. A Plot Area Frame is an alternative when the sampling frame is difficult to obtain (Lavrakas, 2008). Lavrakas (2008) suggested that the Plot Area Frame can be obtained by delineating the geographical area/boundary (list of suburbs, states, etc.) that is within the study interest (Lavrakas, 2008). Therefore, in the current study, the first step in designing the sample frame through a Plot Area Frame was identifying the trade area of the shopping centre (i.e., suburbs falling in the sub-regional shopping centre trade area). The trade area was calculated at a 3km radius (Yang, 2002). After identifying the trade area of the shopping centre in the current study, the demographic profile existing within the trade area was determined. Hence, the population represented in the study sample was restricted to the trade area of the shopping centre. Secondly, the sample frame was stratified according to the shoppers’ frequency of visits. Strata represent the major characteristics of the target population by sampling a proportional amount of each sub-group (Lavrakas, 2008). According to a report by Bailey (2013), female shoppers

account for 72 percent of the total customers visiting shopping centres in Australia. Therefore, the strata in the current study were based on 70 percent female and 30 percent male shoppers. Similar to Teller and Reutterer's (2008) study, this research pre-screened the respondents and considered only those who had visited the three categories of shopping centres multiple times (i.e., neighbourhood, sub-regional and regional shopping centres) and who resided within the trade area of the shopping centre.

According to Teller and Reutterer (2008) the shopping experience cannot be accurately captured effectively through other sampling techniques (i.e., telephone, mail and home interviews), thus increasing the likeliness of causing bias in the results. Therefore, the current study adopted a stratified random sampling approach using a computer assisted personally administered mall intercept survey. For the sample to represent the population within the trade area, the survey was undertaken continuously for a period of three weeks. Sudman and Blair (1999) suggested that residents would make a visit to the shopping centre at some point in time. The surveyor was also located at various entrances/exits of the shopping centre at different time intervals to enhance the randomness of the sample, as suggested by Bruwer et al. (1996) and Sudman (1980).

#### *Estimating the required sample size*

The required sample size of the target population is determined by the amount of confidence level (margin of error) required to present accurate outcomes and the level of variability within the sample (Gravetter and Wallnau, 2016). The target population for the sample in the current study, as discussed in Section 3.4.3, comprises only young adults and the middle aged group. The total size of the target population residing within the sub-regional shopping centre trade area is 67,168 people (Australian Bureau of Statistics, 2016b). Barlett, Kotrlik, and Higgins (2001) suggest a 5 percent margin of error for ordinal scales and 0.50 level of variability in calculating the sample size. In addition, it is considered the minimum standard of 90 percent confidence interval recommended by Smithson (2003) due to time and budget limitations in the current study. For example, permission to access the shopping centre premises is for limited period. Morey, Hoekstra, Rouder, Lee, and Wagenmakers (2016, p. 104) defined confidence interval as "any procedures that generate intervals that will cover the true

value in a fixed proportion of samples". The selection of the confidence interval is at the discretion of the researcher (Hazelrigg, 2004). The commonly used confidence intervals are 90 percent; 95 percent; and 99 percent (Hazelrigg, 2004). Furthermore, Hazelrigg (2004) has recommended the use of 90 percent confidence interval is most reasonable when there has been limited research/study performed on the particular phenomenon. Hence, 90 percent confidence interval provides flexibility to substantiate that the coefficient is not zero (Hair et al., 2014). Therefore, with a 90 percent confidence interval, 0.50 level of variability and  $\pm 10$  percent confidence level, the required sample size was estimated at 270. This sample size fulfils the minimum requirement (i.e., 200) as indicated by Li (2016) in performing Confirmatory Factor Analysis (CFA). The statistical results derived from this sample size were considered to be significant at  $p$  value  $< 0.10$  (Barlett et al., 2001). After identifying the minimum sample size, a pilot study was carried out before implementing the main survey.

#### *Pilot study*

A pilot study was conducted after designing the questionnaire. A pilot study is a small scale preliminary research technique that uses sampling prior to performance of a full-scale research project (Dillman et al., 2014). The pilot study is conducted before the administration of the actual questionnaire to detect weaknesses in design and instrumentation and provides alternative data for the selection of a probability sample. The major purpose of the pilot test was to evaluate questionnaire items in an attempt to predict an appropriate sample size and improve the study design regarding suitability of the wording, layout, response rate and sequence of questions (Dillman et al., 2014).

The pilot study was carried out at a sub-regional shopping centre (same location where the main survey data was collected) from 16<sup>th</sup> January 2017 to 18<sup>th</sup> January 2017 over three continuous days. As mentioned above, the researcher was located at all entrances of the shopping centre at different intervals. The survey began at 9am and concluded at 5pm. The researcher collected the survey according to the strata (30 percent male and 70 percent female). Twenty-five respondents took part in this pilot study. The pilot study was used to test whether there were any problems associated with respondents' interpretations of the questions.

After collecting the data, Cronbach's alpha was employed using R software to calculate the reliability and internal consistency of the ordinal scale by using polychoric correlation matrix (Gadermann, Guhn, and Zumbo, 2012; Zumbo, Gadermann, and Zeisser, 2007). The result met the minimum threshold of 0.70. Section 3.5.3 provides a detailed account of how the main survey was administered.

### **3.5.3 Administration of survey**

The main survey was employed at a sub-regional shopping centre from 20<sup>th</sup> January 2017 to 12<sup>th</sup> February 2017 (24 continuous days). A mall intercept survey method and computer assisted personal interview technique was adopted in collecting the data. One researcher conducted the questionnaire survey during all 24 days. The survey began at 9am and concluded at 5pm on weekdays, except for Thursdays when the survey was conducted from 1pm to 8.30pm due to extended trading hours. During the weekend, the survey was administered from 9.30am to 1.00pm. Respondents were pre-screened before commencing the actual survey by asking questions about their previous visits to the three categories of shopping centres, their residential address (i.e., suburb) and age group (i.e., young adult or middle age). Pre-screening was done in order to ensure that the respondents had knowledge of the three categories of shopping centres and that they were representative of the target population and sample frame for this research. Over 24 days, 300 completed surveys were collected. The surveys were further examined for any technical errors resulting in incomplete responses. After deducting the incomplete responses, the total usable sample was 287. Thus, the total sample collected satisfied the minimum sample requirement as outlined in Section 3.5.2. Section 3.5.4 explains the various data analysis processes that were utilised to derive the results.

### **3.5.4 Data analysis process**

After data collection, the next step was to transform the raw data into meaningful sources of information by using various statistical methods (Earl, 2015). Each step in the data analysis process is presented in Table 11 below. Both SPSS and R software was employed in analysis of the data.

Table 11: Linking the research question and statistical method

<b>Research questions</b>	<b>Statistical methods</b>	<b>Dependent variable</b>	<b>Statistical tools</b>
Does consumers' experience any choice overload and inconvenience in seeking customer assistance when browsing during restricted retail trading hours?	Confirmatory Factor Analysis	In-store browsing behaviour	R software
What is the probability of using e-commerce to obviate the need for customer assistance in stores and reduce choice overload?	Confirmatory Factor Analysis	In-store browsing behaviour	R software
Does a pre-determined purchasing objective enhance the visibility of independent speciality stores when browsing and/or shopping in a regional shopping centre?	Ordinal Regression Analysis	Perceived level of visibility of independent speciality stores at regional shopping centre	SPSS software
Does the usage of e-commerce have any significant impact on consumers' preference for shopping on days offering extended retail trading hours?	Ordinal Regression Analysis	Frequency of shopping visits to categorised shopping centres during extended retail trading hours	SPSS software

*Validity and reliability*

The validity and reliability of the survey data/outcomes is considered high when the results are error free and constant over time and across various items. This research employed three different procedures to enhance the credibility of the results. First, the literature review defined the constructs of this research. Second, a pilot test was

performed to ensure the survey method was free of error. Third, the measurement of the consumers shopping behaviour was based on a five point ordinal scale and confirmatory factor analysis, as suggested by Cabooter, Weijters, Geuens, and Vermeir (2016).

### *Descriptive statistics*

Descriptive statistics provide initial summaries of demographics and essential features of the sample, to ensure the survey sample is representative of the entire population of the sub-regional shopping centre trade area. Descriptive statistics such as measures of frequency is illustrated by a graph in percentage or counts to describe the basic characteristics of the sample (Gravetter and Wallnau, 2016).

### *Inferential statistics*

Inferential statistics were used in the current research to draw conclusions from the survey data. In the current research, two statistical models were applied to obtain the research output. The two statistical models are explained in turn below.

#### 1. Confirmatory Factor Analysis (CFA)

The construct validity and reliability of this study developed through the literature review was analysed by Confirmatory Factor Analysis. According to Li (2016, p. 936) “A confirmatory factor analytic model takes into account the differences between the true and observed scores by including pertinent error variances as model parameters in a structural equation-modelling framework”. The results derived through CFA are widely accepted. The Confirmatory Factor Analysis in the current study was computed with polychoric-polyserial correlation (for ordinal and ratio scales) as suggested by Holgado–Tello, Chacón–Moscoso, Barbero–García, and Vila–Abad (2010). R software was used to run Structural Equation Modelling (SEM).

#### 2. Ordinal Regression Analysis

The ordinal regression method was utilised to analyse ordinal scales. Since the ordinal scales do not satisfy the assumption of normal distribution, other types of regression analysis such as linear regression are usually less suitable in analysing ordinal data (Bürkner and Vuorre, 2018). The ordinal regression analysis was applied in the current research by using SPSS software to link shoppers’ frequency of shopping visits during

weekday extended trading hours with the size of the shopping centre, importance of distance to shopping centre; consumers' in-store browsing behaviour; perceived usefulness, perceived trust and perceived ease of use of e-commerce.

### **3.6 Limitation of research design**

This section presents the various limitations of the current study research design that may have an impact on the results. One of the main limitations is that consumers' browsing behaviour (i.e., the only dependent variable in the current study) usually varies in different shopping centre trade areas (Jarboe and McDaniel, 1987). However, the current study controlled the in-store browsing behaviour by universal dimensions of social cognition in order to minimise the variance. Nevertheless, the inference drawn from this research will be significant to those shopping centres which are located within the trade area of the sub-regional shopping centre. The results from the current study will also add to the previous findings (Jarboe and McDaniel, 1987; Xia, 2010) and to our knowledge of consumer browsing behaviour as it relates to the success of SME retailers within a shopping centre.

The other limitations of this research design are associated with the size and composition of the qualitative and quantitative samples.

- The participation in the focus groups and questionnaire survey was voluntary. More young adults, in comparison to the middle age groups, participated in the focus groups and questionnaire survey. However, the composition of the focus groups and questionnaire survey (i.e., mostly young adults) can be considered acceptable because Jarboe and McDaniel (1987) stated that young adults were the main age group that frequently browsed in shopping centres.
- Differences in the sample size between qualitative and quantitative data are suitable only if the researcher intends to combine the different results when presenting the conclusions of a phenomenon (Creswell and Clark, 2018). This supports the approach utilised in the current research, whereby the aim of the mixed method was to combine the different results when presenting the conclusions.
- The accuracy of the responses is dependent on the willingness of the participants to answer truthfully and completely. In order to get accurate

responses, ethical issues were considered carefully in this study. For example, the questionnaire design avoided potentially sensitive questions and gave the informants the choice to not answer any uncomfortable questions.

- Due to time and budget constraints, stratified random sampling was employed to represent major characteristics of the target population. Additionally, the number of shopping centres selected for the case study was limited to one shopping centre trade area.
- In terms of demographics, the survey excluded 'family size' and 'marriage status'. However, these characteristics have been observed to be less effective in discriminating consumer online shopping usage (Naseri and Elliott, 2011).
- The implementation of the questionnaire survey was specifically focused on the day-to-day, week-to-week browsing behaviour of the respondents.

### **3.7 Conclusion**

This chapter explained key aspects of the research methodology adopted in the current study. Details of the data collection methods and data analysis processes were discussed. In the current research, two focus group discussions were held to acquire more knowledge of how e-commerce can influence consumers' in-store browsing behaviour in a shopping centre and its effect on independent speciality stores. The information derived from the focus group discussions was reviewed with the shopping centre manager.

The case study for the current research also used a questionnaire survey to collect data from 287 respondents in a sub-regional shopping centre. A mall intercept survey method and computer assisted personal interviewing technique were used for quantitative data collection. A questionnaire using closed ended questions with a 5-point ordinal scale was used to measure consumers' responses. The SPSS and R tools were applied in producing the descriptive and inferential statistics. Two types of inferential statistics methods were utilised to analyse the data: Confirmatory Factor Analysis (CFA) and Ordinal Regression Analysis. The CFA examined the reliability and validity of the construct of the current research. Consumers' behaviour towards in-store browsing and their preferences between e-commerce and a shopping centre which had weekday extended trading hours were analysed with the ordinal regression

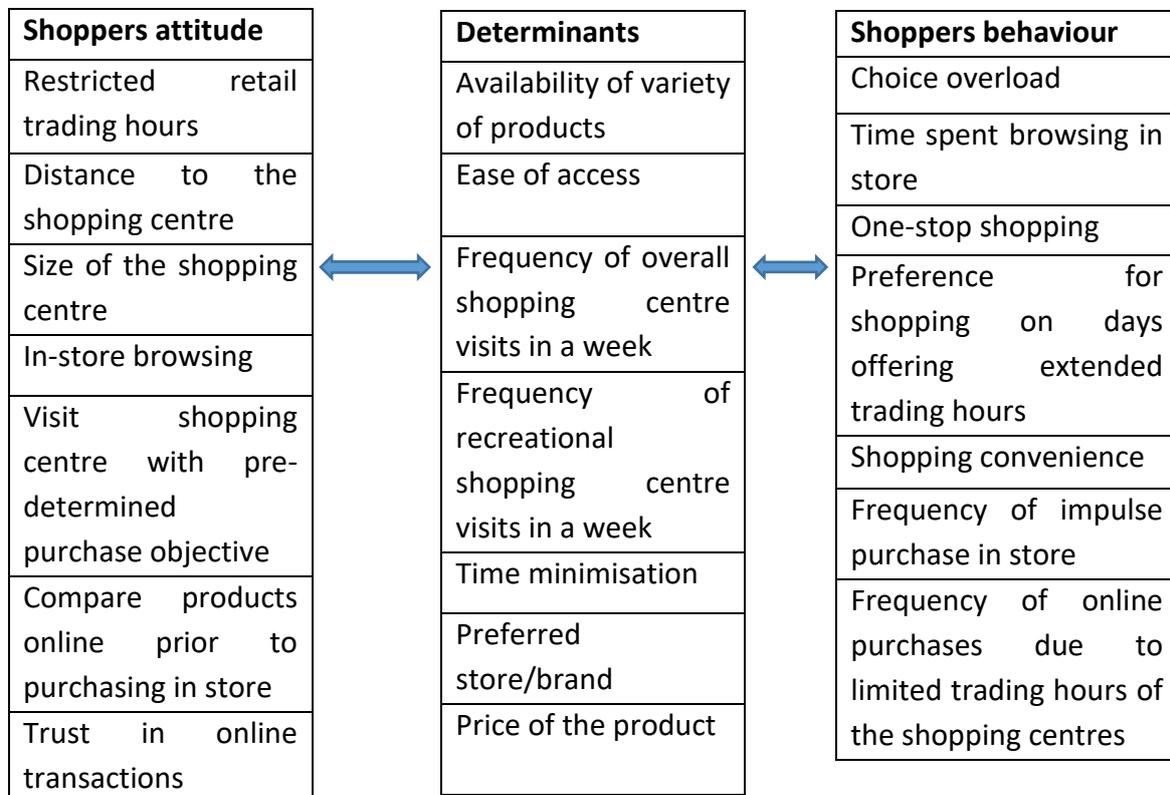
model. The results of the descriptive analysis were represented through graphs and pie charts. The next chapter will report the results of the qualitative analysis.

## Chapter 4: Qualitative Analysis

### 4.1 Introduction

Chapter 3 presented the research methodology and methods used in this study. This chapter discusses research participants' perceptions and opinions about the impact of e-commerce on their use of speciality stores in categorised shopping centres. These qualitative findings are exploratory, with the voices of individuals within the focus groups discussion, as well as the expert (i.e., shopping centre manager) used to describe their experiences of e-commerce and shopping centres on consumers' in-store browsing behaviour during weekday late evening (WLE) trading hours. Consumers' in-store browsing behaviour was focused on the speciality stores run by independent SME retailers. These perspectives are combined under themes to address the research objectives. The themes discussed the various variables (i.e., independent, mediating and dependent variables) derived through the literature review, as shown in Figure 14.

Figure 14: Variables affecting consumers' shopping behaviour



This chapter has six main themes:

1. Influence of shopping centre size on in-store browsing behaviour and choice overload.
2. Ease of access, distance travelled and consumers' in-store browsing behaviour.
3. Impact of online shopping (perceived usefulness) on consumer in-store browsing behaviour.
4. Challenges (perceived ease of use) of independent SME retailers in establishing an online store.
5. Influence of extended trading hours on consumers, shopping centres and independent SME retailers.
6. Opportunities for shopping centres and independent SME retailers in integrating online shopping.

The aim of these themes were to identify the attitudes, behaviours and determinants that influences consumers (young adults and middle age group) to shop during WLE trading hours.

The two focus group discussions and one personal interview with the shopping centre manager were undertaken in separate settings. In line with ethical research practice, all participants were allocated a unique identification code to de-identify them. The unique identification code represents the statement of the focus group participants and they are allocated from R1 to R12, while, the symbol (x) represents the statement of the shopping centre manager.

#### **4.2 Influence of shopping centre size on in-store browsing behaviour and choice overload**

This research sought to identify the effect that the size of the shopping centre had on in-store browsing and choice overload. The majority of focus group participants indicated that the fashion product category was their main preference for browsing in regional shopping centres, while grocery shopping was the core activity carried out in sub-regional and neighbourhood shopping centres. However, the sub-regional shopping centre, due to its high number of Asian restaurants, was also highly preferred as a place to browse for foods and eateries.

Some focus group participants indicated that they also browsed for non-fashion products such as hardware products in neighbourhood shopping centres. As one participant (R5) stated: *“I would actually browse for special hardware and stuff in a neighbourhood shopping centre”*. This statement also indicates that proximity may be an important element when shopping for certain household goods besides grocery items. Additionally, the socio-demographic of this shopping centre trading area comprises a high proportion of Asian students and migrant residents who might not have private cars. Hence, it is convenient for them to access everything locally, especially products for immediate consumption. Perhaps the unavailability of private cars and need for immediate consumption, especially for usual household goods, influenced consumers to shop frequently at a neighbourhood shopping centre. Another possible reason why consumers prefer neighbourhood shopping centre could be the bulky nature of products purchased. For example, Ghemawat (2001) found geographic distance was an important factor affecting the sales and service of bulky goods. Hence, sales of products such as hardware or other bulky equipment (e.g., gardening tools, house paint, etc.) could perform well when sold at a neighbourhood shopping centre. This would be further reinforced if the consumer was reliant on public transport or walking in order to get these goods to their residence.

However, all participants emphasised that the cultural background of those residing within a particular trading area will have an influence on the performance of the speciality stores. As this participant (R10) elucidated:

*If you had that massage, electronic massage shop in a neighbourhood shopping centre in Inala, the culture there is like a lot of Australians and Sudanese. I do not think that they will even like have a second look at that, whereas if you do put this massage shop in the sub-regional shopping centre area where a large Asian population exists, I think many people will have interest in that shop because it is part of the culture (R10).*

Therefore, it is essential to have a thorough understanding of the socio-demographics of the shopping centre trade area. This will enable shopping centres to better cater to

the needs and wants of their consumers, which in turn will facilitate greater economic benefit for the retailers.

A key finding from the focus group discussions was the range of brands or store preferences and their influence on browsing behaviour. Smaller shopping centres face challenges in inducing effective browsing activity due to the lack in variety of stores and products. Many focus group participants associated 'shopping convenience' with the size of the shopping centre, depending on the type of product category. Some product categories, namely fashion products, were more likely to induce shoppers to visit the regional shopping centre than the smaller centres. For example, one participant (R12) expressed his opinion on shopping convenience regarding fashion products:

*Say for example, I was thinking of making a spontaneous purchase, I would be like trying to buy a blazer for tomorrow's church activities. So, for me I'd been to H&M, Roger David, Myer when I am shopping at a regional shopping centre. If I go to the sub-regional shopping centre, all you have is Kmart (R12).*

This statement also indicates the importance of the main anchor tenants (i.e., Kmart, Myer, etc.) in attracting consumers to the shopping centre. Consumers are challenged to recall the presence of independent speciality stores within sub-regional and regional shopping centres as readily as the main anchor tenants. Staden and Aardt (2011) state that consumers use their internal information (one's own memory) as the first step towards information gathering, prior to acquiring information through external sources such as the mass media. Therefore, when a consumer is intent on making an immediate purchase in the fashion product category, the presence of numerous main anchor tenants or reputable brands may influence choice of shopping destination.

Focus group participants discussed the role of regional shopping centres, stating that they were highly preferred for browsing speciality products (both fashion and non-fashion products). The availability of a large number of independent specialty stores, chain stores (e.g., Nike), department stores (e.g., Myer) and discount department

stores<sup>7</sup> (e.g., Kmart) within one location at regional shopping centres provides opportunities for shoppers to find something suitable to their needs. In addition, as speciality products are purchased periodically, shoppers prefer to compare the best available options before making a purchase decision. As one participant (R8) stated:

*I actually prefer larger shopping centres because you have more opportunity and options. Usually if I am going shopping I like to get the best price, so I am willing to take the time to really compare, you know go to Target then to Kmart and this one, this one and make a final decision to purchase from a particular store (R8).*

The shopping centre manager considered size of the shopping centre as an important element that determines consumers' shopping destination, with different sizes of the shopping centres and their selection of shops serving different needs. For example, consumers shopping for fashion products will consider browsing at a regional shopping centre, whilst neighbourhood centres were preferred for grocery shopping. As this individual commented:

*Size of the shopping centre is definitely important. It's a big part of the decision-making process for where to go. I think that customers will deliberately choose to go to a small shopping centre because they don't want to battle with the larger ones or they go to the larger one because they want more variety, more shops within one particular category, especially for discretionary spending. So when buying fashion or buying gifts or things like that you might go to the shopping centre that has 15 or 20 stores in that category. So you might choose a larger shopping centre for that. So, size comes into play but for various reasons. So sometimes I'll choose a small one, sometimes I'll choose a larger one, but it's definitely a big part of the decision-making process (x).*

This perspective suggests that shoppers consider the significance of the size of the shopping centre depending on the product category, their shopping intentions and diversity of product offerings.

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<sup>7</sup> A discount department store is a large department store that occupies store space between 930-10,000 m<sup>2</sup> and has discounts on the products (International Council of Shopping Centres, n.d.; URBIS, 2015). This term is widely used in Australia for stores such as Kmart, Target or Big W.

Focus group participants supported this view, indicating that the size of the shopping centre was important in facilitating one-stop shopping. According to Kaufman (1996) one-stop shopping means facilitating shoppers with all available shopping options under one roof, which can also cater to any uncertain needs of the shopper. For example, shoppers intending to shop for grocery items and speciality products (i.e., shoes, clothes) may consider shopping at the larger size regional shopping centre due to the convenience of one-stop shopping. One female participant explained when one-stop shopping is preferred:

*Yes, the number of items intended to purchase in a single shopping visit and what type of product I am looking for determines the shopping centre. If I need a certain amount of stuff, then I will go to a bigger centre and if I am buying two or three items, then I will visit the closest centre (R8).*

Those focus group participants who disliked browsing in regional shopping centres identified the low level of effort required to browse for products as the main reason for selecting smaller centres, such as the neighbourhood centre. These participants highlighted that independent speciality stores were more eye-catching in a neighbourhood shopping centre. This was mainly due to the size of the product assortment and the small number of speciality stores located in neighbourhood centres. In contrast, the regional shopping centre comprises a large number of speciality stores, making it difficult for shoppers to identify the product offerings at each store. As one respondent (R1) explained:

*I usually do it in a neighbourhood shopping centre where you find, like it's different from what you know you will find. That gets my attention quicker, sometimes you just pass through a neighbourhood centre and you see candles. I haven't seen candles here and probably there is a store for that in the regional shopping centre but I am just not interested there (R1).*

Therefore, the lack of competition for shoppers' attention at neighbourhood shopping centres enables consumers to distinguish between the products and services offered by independent speciality stores.

Interestingly, some of the focus group participants discussed the image of the shopping centre and the influence this had on their personal presentation. For example, one participant (R12) explained: *“Between regional and sub-regional, people are usually well dressed because I know that when going to a regional shopping centre, I feel like I have to wear something a bit nicer”*. This perception of being well dressed when visiting a regional shopping centre may affect the sense of convenience felt by consumers (i.e., visiting a shopping centre wearing any sort of attire) and their frequency of shopping visits. The data suggest that consumers preferred to go shopping at a regional shopping centre when they were less time constrained. Furthermore, R12’s statement highlights that consumers consciously or subconsciously replicate the orientation of the shopping centre. For example, consumers are usually influenced in their visits to neighbourhood centres by the need for immediate consumption, while consumers who choose to visit regional shopping centres to shop seek more leisurely experiences (e.g., movies, restaurants, etc.). Burns (2010) explained that the motivation of dressing well is influenced by an individual’s desire to imitate or associate with a certain class of people who are unique and widely accepted. Hence, consumers visiting a regional shopping centre for leisurely shopping experiences are not just consuming products and services but are also making a fashion statement.

#### **4.2.1 Shopping centre orientation**

The focus group participants perceived regional shopping centres to comprise mostly shops selling well-known brands (e.g., Adidas, Nike). This may be influenced by the sample population of the focus groups, as the sample was drawn from a shopping centre trade area dominated by Asian residents who according to Zhang and Kim (2013) are highly brand-motivated/conscious. Consequently, shoppers were more engaged in browsing the well-known brand stores rather than the independent SME speciality stores. This in turn may lead shoppers to experience considerable familiarity (i.e., consumers will perceive that they know what they will find) with the shopping centre environment and boredom. For example, some focus groups participants identified that regional shopping centres are static, monocultures with the same atmosphere, which makes them non-distinctive or monotonous for some shoppers. As participant (R5) explains:

*...the stuff in a regional centre isn't very interesting to me so I am more likely to go to kind of a funky neighbourhood centre that's got stuff that would interest me and look at that, whereas in a regional shopping centre shops are quite similar (R5).*

However, most focus groups participants also acknowledged that the visual attractiveness or demand for smaller centres diminishes with the presence of a larger regional shopping centre within the trade area. Hence, in order to browse, they would choose to go to the regional shopping centre more often than the sub-regional or neighbourhood shopping centre. In this context, sub-regional and neighbourhood shopping centres are more likely to attract grocery shoppers than those customers looking for speciality products. One participant reflected on this behaviour:

*...don't browse in a sub-regional shopping centre. If I go to a subregional shopping centre, it is for groceries or something, I actually tend to have something to buy in mind and I go there, but for browsing I only go to a regional shopping centre (R4).*

From an experiential perspective, the above statement indicates two forms of shopping experience: cognitive (goal oriented) and sensory (recreational). The data reveals that the two forms of shopping experiences influences the way consumers use shopping centres. For example, shoppers visiting a regional shopping centre were more likely to browse with an abstract mindset as they intend to satisfy their sensory shopping experience. Shoppers visiting sub-regional and neighbourhood shopping centres were predominantly cognitive oriented, and they mostly browse with a concrete idea in order to minimize the time spent while shopping. The cause for shoppers to browse with a concrete or abstract mindset in this case was influenced by the orientation of the shopping centre. The sub-regional shopping centre in the current study is more functional oriented (see chapter 3 section 3.2), and therefore respondents were influenced to shop and browse more often with a pre-determined purchase objective.

Despite the perceived lack of attractiveness of sub-regional shopping centres in comparison to regional shopping centres, the shopping centre manager stressed the importance of daily shopping needs such as grocery shopping. This manager

highlighted that the everyday needs of the shopper influences the frequency of visits to shopping centres, which in turn influences the performance of the independent speciality stores.

*So, I think a lot of small shopping centres are to be marketed and so they have been relying on the weekly or two or three times a week supermarket spend from a customer, and customers would come more regularly to a small sized shopping centre in comparison to a regional shopping centre (x).*

These comments align with Christaller (1966) central place theory which argues that shoppers prefer visiting the nearest shopping centre when availing themselves of goods and services. Hence, smaller shopping centres and the independent speciality stores can sustain the competitiveness against regional shopping centres, but they remain dependent on the performance of the main anchor tenant (i.e., Kmart, Coles).

#### **4.2.2 Opportunity-based and uncertainty-based risk**

A majority of focus group participant's emphasised the need for the availability of a variety of products to facilitate intense browsing activity in shopping centres. Availability of a variety of products is highly sought when the product is associated with higher risk. Risk in this context can be described as opportunity-based risk and uncertainty-based risk. The Australian Government (March 2018, para.1) defined opportunity risk as "risk from choosing one option over another"; while, uncertainty-based risk is "risk from uncertain or unknown events". For example, shoppers comparing the guarantee period for a camera are more concerned with the opportunity risk, while the inspection of apparel is due to the uncertainty of size, cut and colour. These risks are also considered high, as the need for these speciality products occurs periodically and therefore shoppers are more mindful when making a purchase decision. Participants (R5 and R1) explained the browsing difference for uncertainty and opportunity based risk:

*...expensive is not you want it to be and you are not filling up with cheap rubbish stuff, so you are going to buy something that meets your needs. Yes, you need to feel the touch of it and colour of it, whatever. That is*

*why I probably go to shops that have stuff from all over the place and having unusual things rather than the main brands (R5).*

*If I am buying a camera or a computer, it is not that I make up my mind, I need to compare prices or compare guarantees (R1).*

The above statements indicate that shoppers purchasing speciality products seek value for money in addition to fit for purpose. Consequently, shoppers are often driven to inspect (need for touch) the speciality products prior to making a purchase, thus they prefer browsing in larger size shopping centres offering a variety of products. Furthermore, shoppers are likely to visit larger size shopping centres when they are unfamiliar and/or lack adequate knowledge about product attributes. As one participant (R11) commented: *“Actually I would appreciate that they have more options because when I am not interested in a particular product category, I would usually like to see more options”*.

However, the availability of a variety of products also has its disadvantages. The focus group participants discussed the difficulty in accessing the stores of their interest in regional shopping centres and considered them highly inconvenient for shoppers that have limited time to browse in-store. In such situations, shoppers with no pre-determined purchase objective tend to only visit the stores with which they are familiar. As one participant explained, time constraints can determine where people shop and in which stores:

*Regional centres are quite big and if you do not have that much time, you would probably end up going to the bigger stores that you know and like, that you are already familiar with and sometimes you might not even get the time to look at the smaller stores, because you are not familiar with them (R6).*

Consequently, the independent SME speciality stores may not be the first choice when shoppers' priority is value for money. Shim and Bickle (1994) also found consumers who were price conscious usually preferred department stores.

### 4.2.3 Choice overload

The availability of numerous options also affects purchase decision making, especially during time constrained shopping activity. Most of the focus group participants acknowledged the opinion of others and agreed that choice overload was likely to happen when given multiple, similar options. In addition, shoppers who are concerned about the functional attributes of a product are more likely to face choice overload.

*The next scenario here is you do not know what you want, like what your computer is going to be what brand and stuff, that is where I go to the biggest store and look at all the options and probably go online and look at all the options. Sometimes I wish there were not many options. Yes sometimes the quality is very important (R5).*

These comments indicate that the lack of pre-determined brand preference may result in shoppers experiencing choice overload. Choice overload may also occur due to the size of the shopping centre and the number of stores located within it. In this context, the regional shopping centre accommodating numerous independent speciality stores with similar product offerings is more likely to influence shoppers to spend more time and effort in browsing store to store. This may present a reason for time-pressed shoppers to choose the department stores over independent SME speciality stores when visiting the regional shopping centres. Thus, the physical size of the regional shopping centre results in choice overload potential in comparison to sub-regional and neighbourhood shopping centres.

In order to reduce the effect of choice overload due to the presence of numerous stores in regional shopping centres, the shopping centre manager noted the role of conscious stations (e.g., a concierge or information desk). These stations are located within the shopping centre to assist those who may become lost or confused when trying to locate their preferred store. A conscious station can also be beneficial for new residents or tourists who are unfamiliar with the market settings.

*The other way that regional shopping centres do it is by having conscious stations where customers can approach a human being and ask a question and get some advice and help, in that, it's not just about where*

*something is but it's about 'I am looking for a blue hat. Do you know where I might be able to buy one'? (x)*

Conscious stations were considered an important tool in building a positive relationship with customers and in creating awareness of the independent SME speciality stores. As (x) states:

*We can utilise it to draw traffic to a part of the centre that might not be as busy normally and so that is another tool that we can use for retailers too. That is another advantage of being in the shopping centre like ours rather than being standing alone in the business on your own out in the street or even online (x).*

However, from a shopping management perspective the issue of choice overload in regional shopping centres presents an opportunity for sub-regional shopping centres to exist. The shopping centre manager suggested that sub-regional shopping centres are more accessible in terms of size and carry a sufficient number as well as diversity of product lines to cater for various shoppers.

*I think people find that easier sometimes to come to a sub-regional shopping centre because it is a smaller and more convenient experience which is not just as daunting to people. So, we have been hearing that a lot from people, especially since the regional shopping centre became even bigger. We are getting a lot of people's feedback to us that actually, now it feels like it is too big for them. Therefore, that is why they are probably visiting us a little bit more frequently (x).*

The above statement aligns with marketing theory that suggests that smaller centres (sub-regional shopping centres) are preferred if shoppers perceive that the product offered elsewhere (regional shopping centre) is substitutable (Kuksov and Villas-Boas, 2010).

However, in this current research, the perspectives of the shopping centre manager and previous research by Kuksov and Villas-Boas (2010) was not supported. Specifically, female focus group participants preferred browsing at regional shopping centres. As one female participant (R8) indicated, convenience was the main reason

for selecting a regional shopping centre over sub-regional and neighbourhood shopping centres:

*A bigger shopping centre is more preferred because if you forget anything, you can just walk around just around the corner, whereas when it is smaller you are very limited with choice. Unless you are doing something quick, like you forgot your cereal or you need extra milk for your coffee then you will go to the smaller shopping centres, but the majority of the time - regional shopping centre (R8).*

Many female focus group participants disregarded the option of visiting other shopping destinations when purchasing speciality products in general, despite experiencing time constraints at the regional shopping centre. Instead, they would consider going the following day or choose an alternative day to fulfil their shopping and browsing needs. As one participant (R7) noted: *“If am too tired and miss going shopping, I will make sure that the next day in the early morning when I am available I will go”*. Some of these female participants also indicated that time constraints do affect their frequency of shopping visits. However, a decrease in frequency does not influence them to skip their recreational shopping experiences. They discussed their willingness to combine both goal oriented and recreational shopping by engaging in one-stop shopping. As one of the female participants reflected:

*Browsing is like a leisure activity, so I think if we are tired we don't want to do that and we won't go browsing at the shopping centre, but if we have time and we have the energy then we will go. Therefore, I think it will be an enjoyable experience (R4).*

In this context, the larger regional shopping centre becomes the preferred destination. Furthermore, these female participants refer to in-store browsing as a leisure activity (part of the sensory shopping experience) and therefore, the regional shopping centres are highly preferred. These results substantiate Workman and Cho (2012) and Raajpoot, Sharma, and Chebat's (2008) findings that female shoppers gain pleasurable experiences from browsing in shops holding a larger product assortment.

Shopping centres that can induce pleasurable shopping experiences have a higher probability of shoppers making impulse purchases. The data suggest that the probability of impulse purchase was even greater for female shoppers undergoing stress due to, for example, work or relationships. As one female participant explained, impulse purchases uplift one's mood and in turn contribute towards the economic aspect of the shopping centre,

*...work can be so stressful sometimes, so after work, I go straight to the shopping centre and it does not matter what I am going to buy, as I just need to take my mind off things. This gives you that relaxation by having a coffee or you want to treat yourself or buy some extra groceries (R8).*

Special occasions (e.g., marriage) or festivals (e.g., Christmas) are also important factors driving consumers, especially female consumers, to browse intensively in-store. As one female participant (R10) explained:

*I think girls are bit different. I mean it depends on what it is but I think in advance like 'oh ok it's someone's birthday coming up next month. Oh! this is on sale and I better check out' or maybe I'll find something in there. And I do impulse buy a lot by thinking in advance of different things just so I don't have to stress for shopping later. But, like if you get stuff on sale for Christmas presents like 'oh I'll get this' or like 'this will be perfect for this person' and all (R10).*

Thus, stress and emotional responses can be factors that influence female shoppers to browse in shopping centres. These findings confirm Trautmann and Johnson (2009) findings that female shoppers tend to make impulse purchases due to stress.

In contrast, the male participants primarily visited shopping centres for grocery shopping unless they were catching up with friends and family. The only circumstance (i.e., without purchase intention) in which they engaged in browsing products is if they are attracted to the visual cues displayed by the stores. As participant (R1) noted: *"I just go for the groceries and I will only stop if there is something very interesting regarding fashion or electronics"*. However, the data suggest that the visual cues were only effective if the shopper has an interest or involvement with the product category.

Nevertheless, the location of the speciality stores that focus on the male market segment in this case was pivotal in increasing their visibility (i.e., recall that the store exists) because male consumers usually do not browse unless they definitely intend to make a purchase.

A challenge for smaller centres within close proximity of regional shopping centres, is how they can attract consumers' for browsing in-stores. Consumers are induced to browse in-stores by the availability of variety of products and shopping centre orientation (i.e., fashion orientation) (Jansen-Verbeke, 1987; Kim and Kim, 2008). However, in the current study, the shopping centre manager suggested that smaller centres could accommodate speciality stores that provide customers with value for money, as different categories of shopping centres cater for different needs. For example:

*...for a regional shopping centre, you would go there when you need to buy gifts or fashion or a discretionary spends rather than a need-wise spend (x).*

*...even though some people would be doing the grocery shopping in the regional shopping centre, there are probably a higher percentage of people in sub-regional shopping centres during the grocery shopping day that would come and engage in a leisurely experience (x).*

These comments suggest that sub-regional and neighbourhood centres could remain competitive despite the existence of a regional shopping centre within its trade area. As mentioned previously, retailers specialising in low demand products may be more successful in smaller shopping centres than in regional centres. Thus, the success of the retailers in attracting in-store consumer browsing behaviour to some extent lies in the shopping centre's orientation.

The focus groups indicated that in-store browsing is essential as it enables them to become familiar with the shopping environment and more aware of the various products and services offered. The shopping centres also benefit from repeat visits for future purchases. As one participant explained:

*Like so far we have been in the store like tonight, say on Thursday night I am just browsing I see something I like and I am ok I will get it next week, it reminds me and I will come and get it. So I don't really want to compare because I know that's what I like (R2).*

The shopping centre manager emphasised the need to improve shopping centres in order to sustain competitiveness by aligning them with changing trends and meeting the needs of shoppers. In discussing how shopping centres could increase their competitiveness, the expert highlighted the need to improve shopping convenience. This includes effective positioning of stores within the shopping centre in order to enhance consumers' browsing behaviour and facilitating a quick scan of product assortment for future reference.

*So, I think that shopping centres provide that opportunity for competitors to be co-located and therefore you can very quickly scan through stores and comparison shop, and you can touch and feel and being able to really experience the product but in a quick time frame if you have a few stores within the category you want to browse (x).*

This section (4.2) found that the visibility of the independent speciality stores is influenced by the size of the shopping centre, due to two factors: shoppers' time constraints and shopping centre orientation. Firstly, time constraints give rise to choice overload, especially in larger shopping centres, as it clouds the potential of the shoppers to 'see' what each store offers. Secondly, the shopping centre orientation influences shoppers to browse for certain types of product category only. Yet it was clear that pre-determined brand preference/store preference could help shoppers, especially non-browsers, to reduce choice overload in regional shopping centres. Risk (i.e., opportunity based and uncertainty based risk) associated with speciality products is a key factor influencing shoppers to prefer larger shopping centres. Having considered the importance of time and centre orientation on consumer browsing behaviour, Section 4.3 explores how distance and ease of accessibility influence consumers' choice of shopping centre for speciality products.

### 4.3: Ease of access, distance travelled and consumer in-store browsing behaviour

The previous section identified 'size' as an important factor in determining shoppers' preferred shopping centres for browsing. This section explores the importance of distance and ease of accessibility to consumers' browsing behaviour. The distance to a shopping centre was highly influential in the level of product involvement<sup>8</sup> for in-store browsing. For example, shoppers travelling further distances for their browsing activity exhibited lower product involvement than shoppers browsing at the nearest shopping centre. This has an impact on shoppers' impulse purchasing. Liang (2012) found shoppers with higher product involvement tend to make more frequent impulse purchases. Furthermore, distance is influenced by the perceived ease of accessibility of the shopping centre, such as the availability of public transport or parking. The explanation for this outcome and its implication for independent speciality stores is discussed in this section.

The focus groups identified two key factors as to why shoppers will travel further to browse in shopping centres: adventure seeking and socialisation. However, in both of these circumstances the product involvement of shoppers is very low as they are more preoccupied with their social activities. For example (R5) explains: *"If then it is just to look around shops and maybe to meet friends and have breakfast or coffee or something, in which case I will go but more for the social, more because I am meeting friends"*. In this context, the browsing behaviour of the shoppers may not be highly beneficial for the speciality stores in terms of sales. One participant (R6) relates how adventure seeking was a means of getting away from routine shopping experiences:

*In terms of browsing, for me I will probably prefer it to be closer, just so I don't have to go so far, but like just for some different experience, if you are getting sick of the store close to you, probably travel a bit to a different place, it might be better (R6).*

A majority of the focus group participants, especially the female participants, considered distance important when browsing for products. The only situation where the female focus group participants agreed to travel further distances and have higher

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<sup>8</sup> Product involvement is the level of interest shown by a consumer to a particular product class based on the consumer's needs, values, and interests (Bloch, 1982).

product involvement is when the availability of the speciality product was known or was perceived to be scarce. Two participants described how the importance of the purchase might overcome the inconvenience of travelling further to a shopping centre:

*I prefer closer just because I do not like traveling too far, but if I do need something like what you were saying that is hard to find, then I would consider travelling a bit further. Maybe if there are special shoes that I am looking for, a special something that I need then I would go that distance, but as much as possible I prefer it closer (R8).*

*...for browsing I prefer it to be closer, if I already knew that there is some good stuff which is there, then I will go further, otherwise I will go the nearest centre. (R4)*

Where products are available at multiple locations focus group participants preferred the closest shopping centre as it is seen to offer ease of access as well as certainty of purchase. As participant (R6) expressed: *“If two places sell what you wanted, you will go to the one that is closer where you can get there, park there and it’s for sure you will get something done”*. However, other participants indicated price differentiation between shopping centres offering the same item also influenced the purchaser’s decision and reduced the significance of distance and accessibility. Participant (R2) noted, *“What if it was more expensive as some places sell the same product like for 10 to 15 dollars’ difference”*. According to (R9),

*Depends on how much you are willing to pay for a product that is difficult to find somewhere if you are looking for a particular product. Like how much your time is worth, and that kind of stuff you know (R9).*

Another factor influencing focus group participants’ preferred shopping centre was related to ease of access. Ease of accessibility is determined by the mode of transportation used by the consumer to get to the shopping centre. For example, the ease of access for consumers travelling by public transport depends on the frequency of bus or rail transport. Similarly, participants travelling by private car were influenced by distance to drive to the centre and ease of getting a parking spot at any time of the day. Accessing the regional shopping centre by private car during the extended trading

hours was often challenging due to the high demand from shoppers. Inaccessibility was mostly concerned with parking spaces. As one participant indicated: *“On Thursday nights I never park in the shopping centre, I park across the road. It’s ridiculous, you spend 15 to 20 minutes looking for car park” (R2)*. This statement also indicates that the potential of in-store browsing may be affected when shoppers spend 15-20 minutes finding a car park that could have been otherwise used for browsing other product categories.

#### **4.3.1 Parking fees**

In response to heightened demand for parking at regional shopping centres many have introduced parking fees to facilitate the effective use of parking spaces. Parking fees were perceived as a deterrent for shoppers in accessing these shopping centres. However, this provides opportunity for smaller centres to attract shoppers to spend more time in the centre through free parking incentives. The shopping centre expert suggested that the free parking incentive would be more useful for sub-regional shopping centres in attracting shoppers with recreational shopping objectives (i.e., grocery shopping and watching movies, etc.) than regional shopping centres.

*We find that customers appreciate the ease of access. So in terms of making a decision about going to a cinema for instance, the regional shopping centre can be perceived to be inaccessible because the parking is more difficult. They charge for parking and it’s because the retail precinct there is very busy and dynamic that customers are taking up the car parks for hours that would possibly be needed for other customers coming into the shopping centre. I think people find it easier sometimes to go to a sub-regional shopping centre because it is a smaller and more convenient experiences which is not as daunting to people (x).*

The focus group participants utilised the parking fees to their advantage by restricting their shopping activity to less than 3 hours in regional shopping centres to obtain the free parking incentive. As one participant stated: *“I usually tend to limit shopping up to 3 hours because it’s free parking. I don’t want to pay because it’s too expensive” (R4)*. As a consequence, shoppers are likely to limit their in-store browsing activity and product involvement due to time restrictions imposed by parking fees.

However, the shopping centre manager indicated that the maximum 3 hours free parking incentive at the regional shopping centre is more than enough, as most shoppers are more likely to accomplish their intended purchases within this time frame.

*I think that's reasonable because the average shopper will probably not be in the centre for more than 3 or 4 hours and that depends again on the size of the shopping centre and the offer of the shopping centres, so some that are supermarket based, no cinema, then a customer will be in and out well under 2 or 3 hours (x).*

However, this view aligns with goal-orientated shoppers and the free parking time limits may not be sufficient for recreational shoppers. To balance the disadvantages of the free parking incentive, regional shopping centres introduced an alternative option where those shoppers spending more than AUD\$150 have their parking validated and do not have to pay the parking fee. This enables people to spend more time in the centre with a corresponding consumer spend for retailers. Yet shoppers, especially those who are students (with a low income) or who are price conscious (browsing for discounts), are less likely to spend over \$150 every visit they make to the shopping centre. Hence, these price conscious shoppers are likely to restrict their browsing activity most of the time. For example, one of the female participants who is a university student described how these limitations reduced her browsing behaviour,

*If I am just there to buy food or eat something and not engage in purchasing something for AUD\$150, then I would prefer to gain free parking in the regional shopping centre. In this circumstance I would park my car over where the food court is and just walk around the shopping centre very quickly and come back to stuff myself with food (R11).*

Thus, some shoppers prefer to find a parking space closer to the store they intend to visit within the shopping centre. This behaviour facilitates quick entry and exit for shoppers and allows them to accomplish their activities within the 3 hours parking limit. Yet consumers' perception of ease of access is likely to be less important when they visit a shopping centre with the intention of spending longer than they usually do. As one participant (R10) stated:

*...it again does come down to the product I am looking for. If it's just groceries, I just want in and out, if it's a whole lot bunch of stuff I want to buy or looking at a camera or something, I don't mind if I take my time to get in, cause I know I am going to take time looking at something I want (R10).*

Nevertheless, parking incentives need to correspond to the size of the shopping centre. For example, two to three shopping hours may not be sufficient for shoppers intending to access one-stop shopping (i.e., recreational and goal oriented shopping) in regional shopping centres due to the enormous product assortment. It will either lead the shopper to focus more on recreational aspects (social activity) by relinquishing the product involvement or vice versa. Consequently, there may be a negative impact on the 'pleasure' people derive from shopping because they have to keep to the time limit for free parking.

Another challenge for the shopping centres in providing free parking spaces is that commuters often take up the parking spaces. The shopping centre manager highlighted how they must bear the extra cost of enforcing parking as most commuters utilise parking spaces due to limited infrastructure provided by government authorities.

*But the other thing that comes with that is monitoring those car parks and there is labour cost involved with that for us with security guard and things like that. But trying to make sure that we don't have commuters parking in the car park all day long, we are able to keep those available for our customers and that's the only challenge and that's definitely why shopping centres are moving towards pay parking scenarios, because possibly infrastructure is not good enough from the authority's perspective. So, from council, from state government, they are not really providing the infrastructure around the travel opportunities for customers, for people to get in to the city to work. So, shopping centres are having to bear that burden unfortunately and it's not great for our customers because a car park might be taken for up 9 to 10 hours a day by a commuter, and even though the commuter might be a customer*

*then they are not there for up to 10 hours per day, So, then the other customers who are wanting to come in that quickly are finding those car parks taken. So commuters parking in those spaces deteriorate the shopping environment (x).*

Consequently, there is a negative impact on the shopping centres' performance as shoppers shy away due to lack of parking spaces. This makes the implementation of parking fees important in maintaining the efficiency of the parking spaces.

#### **4.3.2 Good connectivity to public transportation**

Apart from parking inconvenience, focus group participants also indicated the importance of good public transport connectivity to shopping centres. This research found that the sub-regional shopping centre might provide ease of access for shoppers travelling by car. However, the focus group participants indicated the sub-regional to be less convenient for shoppers travelling by public transport. As one participant (R4) explains, the lack of good public transport connectivity to sub-regional shopping centres makes them less efficient in comparison to regional shopping centres and may result in a loss of market share to regional shopping centres.

*Actually, like if you compare regional and sub-regional shopping centres like from my house I live just in Robertson just near to Griffith University and it is easier to get to a regional rather than to a sub-regional shopping centre. Actually, the distance to a sub-regional shopping centre is closer to my house than the regional shopping centre, but the bus is not very regular. It's easier to get to the regional shopping centre due to a better bus route and is like every ten minutes or so while its more difficult to go to sub-regional centre (R4).*

The shopping centre manager acknowledged the importance of effective public transport to shopping centres. However, he also indicated the challenges of having good public transport nearby, as it increased the problem of commuters taking up the centres' parking spaces,

*So there are pluses and minuses of being in a transport hub. So by having good express bus stops at your door step, you are also encouraging*

*commuter parking. So, it's tricky and we really do need to be working with council and state government to alleviate the problem with that. (x)*

Ultimately, facilitating ease of accessibility is a challenge that every shopping centre faces. Nevertheless, all focus group participants agreed that the frequency of visits to nearby shops is greater for everyday items, irrespective of the type of shopping centre and/or their ease of accessibility. As one participant stated: *"All the stuff you need like on regular basis, I like them all to be closer to my residence"* (R5). Thus, the neighbourhood shopping centre will still be influential in serving the local community with everyday conventional products such as groceries.

#### **4.3.3 Frequency of weekly shopping visits**

The frequency of visiting shopping centres was also a key topic for discussion. Most focus group participants indicated they would usually go shopping at least once a week. Proximity was one of the key factors in consumers' high frequency of shopping visits. As participant (9) states: *"I would say twice a week only because my work is right next to a shopping centre and then I am closer if I need anything else, I get it, yes so twice"*. However, the high frequency of shopping visits was mostly goal-oriented and related to the purchase of groceries and/or daily conventional goods. For example, one of the participants (R10) commented: *"I go three times a week just because I like getting fresh stuff"*. These findings support Baker and Wood's (2010) research which demonstrated that the frequency of shopping visits is usually higher at neighbourhood shopping centres than regional shopping centres because they are located in close proximity to consumers' residences.

This research has found that distance and easy accessibility were highly desired by focus group participants when considering and/or undertaking a shopping trip. Yet numerous participants indicated difficulties in accessing shopping centres, especially the regional centres, due to limited parking spaces and poor connectivity to public transport for smaller shopping centres. While centre management acknowledged public transport was lacking for smaller shopping centres, they also consider it daunting to resolve, as this issue involves various third parties, including the government, to facilitate development of adequate infrastructure. Therefore, section

4.4 will identify the relevance of online shopping in offsetting the drawbacks of shopping centres and its impact on consumers' in-store browsing behaviour.

#### **4.4 Impact of online shopping on consumers' in-store browsing behaviour**

The previous section established how distance and the perceived ease of accessibility to the shopping centre could influence shoppers' level of product involvement during in-store browsing. This section identifies how price and convenience are contributing factors influencing online shopping. Interestingly, the focus groups came to the consensus that online shopping may have little or low effect on in-store consumers' browsing behaviour, depending on the type of product risk (i.e., uncertainty or opportunity based risk). Speciality products that carry opportunity risk are more likely to be browsed both online and in-store prior to making a purchase decision than products with uncertainty based risk. Hence, the probability of shoppers making an impulse purchase in-store is greater for products carrying uncertainty-based risk, although the main motive discussed by the focus groups for online shopping was price.

The shopping centre manager also acknowledged that a major challenge posed by online shopping for shopping centres is the ability to offer competitive prices to customers. A key challenge for the shopping centre is largely related to overhead costs (i.e. rent, utilities, labour costs etc.),

*Shoppers are more aware of what's going on online and monitoring that and trying to cross match if you can find it cheaper elsewhere. I think that the physical environment is trying to adapt to be competitive on price and I do think there are challenges in Australia as the cost of labour is high. So, you know, providing that service element and being able to keep prices low is probably the biggest challenge in terms of matching price from online shopping for Australian retailers (x).*

Nevertheless, the focus group participants also highlighted that online shopping was highly beneficial for a range of reasons including price, availability of a variety of products and convenience. However, the perception of convenience of online shopping varied amongst the participants. For example, participant (R12) indicated online shopping could be useful for price conscious shoppers looking for discounts:

*“Just to check if it’s in stock or not and also If sometimes I have seen something I like, I kind of stalked it online and wait for it to go on sale and keep an eye on it” (R12).*

Online shopping can ascertain the availability of the product in-store prior to making a shopping trip, which is convenient. However, when shoppers make a pre-determined purchase decision based on the information acquired online, then in-store browsing is affected. In this circumstance, shoppers are likely to limit their browsing activity to a minimal number of stores. As participant (R6) explains:

*If I already know what I want, and I know that place sells what I want, I will probably go to that place just because in my mind, I have already made up and I am not going to browse. I kind of do that online though so that I can save time (R6).*

Another participant (R5) identified that online shopping can be highly convenient in reaching out to families and friends living in different cities or countries during festive or special occasions,

*The other thing it’s good for - a lot of my families is in Melbourne. Say you want to buy a present for someone, it can be really good to go online and just send it to their house, that kind of stuff, but most of it is books and music, and so that can be pretty convenient, you don’t have to go shopping and then post the product (R5).*

Thus, online shopping can reduce the effort in organising shopping activity. Online shopping was perceived to be beneficial for shoppers who have hectic working schedules and are unable to make time for shopping activity. As one participant (R8) noted: *“Depending on your lifestyle, if your work is really heavy from 9 to 5 and you won’t really have the energy to go shopping, that’s when you would consider or you can consider online shopping” (R8).*

The other advantage for online shopping is in bulk purchases. Bulk purchases can minimise the cost of delivery and also result in higher discounts. The need for bulk purchases usually arises when organising personal events or functions. *“The only time I go online shopping is if I am looking for bulk buying so like if I have a party” (R8).*

However, despite the challenge of online competitors, opportunities exist for shopping centres to integrate online shopping with physical infrastructure to enhance the experience and increase awareness and spending amongst shoppers. The shopping centre manager expressed cautiousness from overuse of technology (in promoting sales), as the main aim for shopping centres is to attract shoppers to spend more time browsing in the centre.

*We are able to push notifications through our shopping centre online app so we can promote to our customers while they are in the centre, and in particular the offers that are available in the stores. So that's another way of combatting online in a way, because people have to be deliberate go online to get the messages or checking their email to get messages about what's happening in the stores that they like the most. But when they're shopping here we don't spam them as we are very careful about how much we do that, so that there is no intrusiveness. Nevertheless, they can switch it on and off and they can be advised of special offers happening in the centre (x).*

Hence, the effectiveness of online shopping for shopping centres is in luring current and potential customers into the centre by notifying them about special events and sales (based on shoppers' interests of the product category). At the same time, shopping centre management must be measured about how they use these options so as not to spoil the 'shopping experience'. For example, bombarding shoppers with too much communication is off putting for consumers and may make them lose interest in a purchase and/or product.

#### **4.4.1 Pre-determined purchase decision and in-store browsing time**

Interestingly, many focus group participants rejected the notion of decreasing their frequency of in-store browsing activity despite the increase in online usage (i.e., for purchasing and browsing), unless they have made pre-determined purchase decisions prior to visiting the shopping centre. However, differentiation between online shopping and in-store browsing appeared to be influenced by the product category, product carrying opportunity-based and uncertainty-based risk. For example,

participant (R2) indicated that online shopping was suitable for certain products, but not for fashion products that carry uncertainty based risk such as the size.

*Not for certain products. I only shop online or browse online for watches, shoes, hats, wallets and as far as clothes, it might not fit so I tend to not take that risk. I'd rather just go and shop after trying it (R2).*

Hence, shoppers intending to purchase fashion products with uncertainty-based risk are less likely to visit a shopping centre having a pre-determined purchase decision. Meanwhile, products that carry opportunity-risk are likely to be browsed both in-store and online. As participant (R5) explains:

*If you are making a big purchase like I did for a new laptop a few months ago. I have looked in some shops and I did it online as well. I did quite a bit of research into stuff, so I could get what I wanted and so probably depends, will do both but yeah, I don't think it's changed browsing in the shopping centre. But I feel like ethically you shouldn't go and just try only and go and buy online this is wrong to me, so I don't do that (R5).*

Nonetheless, the aspect of fun and pleasure derived through browsing in-store still exists. The above statement indicates that shoppers' value systems are intertwined with their purchasing decisions. Thus, most shoppers intending to browse in-store with high product involvement will exhibit a higher probability of making a purchase, whether planned or impulsive.

Previous research has also identified that female shoppers perceive shopping as a pleasurable experience (Workman and Cho, 2012), therefore, they often continue browsing after accomplishing their primary shopping objective. As one of the female participants (R4) noted:

*I agree for me it doesn't reduce the browsing time in the shopping centre because I go to the shopping centre so like regularly, every week. I go there so yeah, I always do browsing in a shopping centre but I also browse online, so yeah it doesn't really affect the time in the shopping centre (R4).*

Hence, the in-store browsing time, especially for female consumers, is less likely to be affected by online shopping when they intend to visit the shopping centre.

#### *Security issues*

The other reason the focus groups identified as browsing in-store for what they saw as 'higher risk' products was the issue of trust with online transactions. Focus group participants concluded that, to some extent, mistrust toward online transactions still exists despite the various security measures taken by online retailers. Examples of risk management strategies participants had taken when purchasing online included: "...to check my credit card statement" (R5); "...make sure there is a return policy" (R3) and, "...to not give away any personal details and just those really specific things" (R8). According to the shopping centre manager this weakness in trust of online shopping is pertinent and will facilitate the balance between online and traditional (i.e., physical) stores' competitiveness.

#### *Instant gratification*

The shopping centre manager noted that the lack of instant gratification derived from online shopping gives shopping centres an advantage, as consumers are influenced to shop in-store.

*...not having to wait for delivery and I think that's the other thing that we have over online because even I get frustrated and I think we're getting more and more impatient, we are expecting things to be delivered the next day and I use some online businesses that takes 7 to 10 days and I just think that's crazy. Why would you? So some goods are also available in bricks and mortar so I will then actually think I don't want to wait so I am going to go to the shopping centre and get it (x).*

The focus group participants agreed that instant gratification could be advantageous when the consumer required immediate consumption. In this context, the consumer will choose to visit the shopping centre; otherwise, online shopping remains an alternative option. As participant (R1) explains:

*...I need something tomorrow then I go to the speciality store. However, if there is something that can wait, I order it online, I don't have to go to the shopping centre, I don't have to organise for shopping (R1).*

Hence, product delivery time is one of the factors that may negatively affect a consumer's choice to shop online.

#### **4.4.2 Social interaction**

Another factor that shopping centres can benefit from is shoppers' need for social interaction. The centre manager noted that the shopping centre provides a platform for shoppers to engage in enjoyable social activities that are not possible through online shopping,

*I think that the shopping centre is still a community hub and even now we are living in a technologically savvy online community, people still want contact with other people and I think shopping centres provide that opportunity for people to get together and see each other to meet, to have a coffee, to have other experiences like going to the movies, bringing their kids out to the fun centres or things like that (x).*

The centre manager's perception that social interaction is one of the driving forces for shoppers to visit a centre is supported by the focus groups. As one participant (R2) noted:

*Being a social person, I would go to a store rather than sitting and lying at home because first of all I will feel lazy, then I want to get out. It feels more like an activity, so probably I would want go and visit a store (R2).*

Furthermore, the significance of customer assistance and the physical presence of products are contributing factors in maintaining the competitive advantage the shopping centre has over online shopping. As the centre manager confidently stated:

*So there is that human interaction that online can't provide, and I have said to you before that you got this built-up relationship in understanding of customer needs and to offer the customer the product based on those and I think It's very flattering when someone says to you, this is*

*going to look great on you rather than a computer telling you, you might like these too. So I think that they will never be able to replace that that human interaction that we still crave in a technological world. We don't always acknowledge that we do but we definitely respond to it (x).*

This section has identified that while price is the main reason for shopping online, the need for socialisation, lack of trust of online transactions and instant gratification all have an influence on whether consumers choose to visit a shopping centre rather than shop online. Online shopping is an important tool in keeping electronically connected with customers and in reaching out to potential customers, whereas a shopping centre is less effective in these areas due to its fixed physical location. The next section will delineate the challenges independent SME retailers face in establishing online stores.

#### **4.5 Challenges independent SME retailers face in establishing online stores**

As the previous section highlighted, online shopping is convenient for consumers, especially those who are time poor. Reimers and Clulow (2009) found that most Australian consumers are usually time poor. Therefore, this section examines the perceived ease of use of online shopping offered by independent SME speciality retailers. The section aims to draw out the challenges that an independent SME speciality retailer may face when integrating online shopping within their physical store offering. The challenges will be identified by comparing the perceived online competitiveness of the independent speciality store retailers against purely online retailers such as Amazon or eBay. This will help in determining whether integrating online shopping along with a physical presence will be beneficial for independent SME speciality retailers or will simply create an additional cost.

The current research has identified that some consumers perceive that small independent speciality retailers are more reliable and trustworthy than an online store when they also have a physical presence. However, small independent speciality store retailers might have less advantage than an online store in competing with the well-established, purely online retailers such as Amazon or eBay. Focus groups in this research indicated that the major disadvantages of small independent speciality store retailers are price, product quality, product return, effective online communication and non-repetitive purchases (i.e., one-time purchase). These disadvantages result in

only certain product categories thriving online, such as fashion products, homewares and appliances, personal and recreational products.

### *Price*

During the focus group discussions, well-known purely online retailers, such as Amazon, were more frequently referred to than independent SME retailers when purchasing products online. As one respondent stated: *“When I shop online it’s mostly Amazon or something like that, something pretty big and its mostly things that I have shopped for before and am familiar with”* (R5). Two main factors facilitated this perception: price and low product involvement. The focus groups perceived that the speciality stores run by the small and medium enterprise (SME) retailers were less competitive against purely online retailers in terms of price. For example, one participant (R7) noted: *“It’s probably more expensive as well online for unusual things”*. Furthermore, shoppers may want to examine the products that they are less involved with prior to making a purchase decision. For example, a male shopper who has high product involvement with electronic products may take the risk (i.e., trust an online transaction) of purchasing electronic items online. However, the same male shopper may prefer to select a physical store for the fashion product category, due to low product involvement and being unwilling to take the risk. This combination of high price and low product involvement affects shoppers’ trust of, and confidence in, online purchases. One participant (R5) commented:

*Because online shopping probably involves more of conventional everyday stuff not unusual stuff and yeah you don’t know what you are getting. Whereas for normal everyday stuff that you get all time, you know what you are getting, so you can go online and it’s easy* (R5).

Hence, shoppers tend to visit established, purely online retailers such as eBay and Amazon more often than the online services offered by traditional bricks and mortar stores.

### *Product quality*

Previous online experiences also influenced focus group participants. Several participants expressed their grievances about their online purchases of fashion

products. As one respondent stated: “When it comes to fashion, I prefer to go to a shopping centre because I have to try it” (R4). Another respondent also utilised physical stores to try on a product to ensure that fit, style or design was appropriate if they were to purchase online, stating:

*That’s why I don’t like getting stuff online because usually what they try to sell to you is not exactly the same as what you expect to get, as well as the fitting. You don’t know if it really will fit. I prefer going to the actual shop and trying it on. I don’t want to buy something and have to refund it and send it back; it’s such a hassle (R8).*

As mentioned in Section 4.2.2, the type of risk (i.e., uncertainty-based or opportunity-based) carried by the product will influence shoppers’ online purchase decisions. Yet, the fashion product category has more appeal to in-store browsers than online shopping prior to purchase.

#### *Product return*

The other factor that affects online purchases is the effort required to return a product if the consumer is dissatisfied. Shoppers are uncertain about making online purchases for products that they are unfamiliar with or have low product involvement with. One participant described similar behaviour when talking about their approach to shopping online:

*I don’t shop online until I am going to buy a new pair of running shoes or something like that. I know the model I want because otherwise I have to try something on. It’s so inconvenient taking it back to the post office to return the product (R5).*

Therefore, shoppers usually limit their online purchases to products that they are highly involved with or those they are knowledgeable about. This minimises the probability of being unsatisfied or selecting poor quality products when shopping online.

### *Online communication*

In the case where the consumer experiences dissatisfaction or finds a defect in the quality of a product purchased online, the key factor in maintaining the level of trust is through effective communication. Focus group participants highlighted that the major challenge for independent SME speciality store retailers in online shopping is the ability to communicate effectively with customers. They considered that independent SME speciality store retailers had limited resources and often lacked technological expertise, which in turn affected their efficiency in dealing with customers within the digital environment. One participant (R1) commented:

*Sometimes you don't see, or you don't get an email, but you get an automatic response saying your purchase has been accepted and is being delivered, but you don't know, like you cannot check or find somebody you can contact on the other side. Yeah but those are the big ones for example. If we are talking about speciality stores they don't have that service, but you can find that in Apple, Adidas (R1).*

Unlike larger purely online retailers, which have a strong emphasis on communication, this may prove a major challenge for smaller retailers, considering the scale of online demand, 24/7 timeframe and the necessary technological expertise required. Thus, these factors contribute to the reasons why established purely online retailers have experienced more success than traditional bricks and mortar retailers in the online shopping market (Australia Post, 2018).

Independent SME speciality retailers may find themselves better positioned if they establish a physical presence and then integrate an online store. This approach will enhance customers' awareness and trust in the retailer, assist in service quality (ability to return products easily), and in developing and maintaining relationships with customers (effective communication). As one participant noted, they may choose to purchase products online only if the independent speciality retailer and their product offerings are familiar to them,

*But then eventually if there is no shop then you will never be able to see it and know what you are buying online. But I just couldn't be confident with the quality and stuff like that if I couldn't see it (R5).*

Furthermore, by locating themselves within a shopping centre, the shortcomings of effective online communication of the independent SME speciality retailers can be offset by the marketing expertise and power of the centre management. In this way, shopping centres can facilitate the infrastructure and brand image necessary to enhance independent SME retailers' services, both online and in-store. The shopping centre manager asserted:

*So from a small business owner's perspective, shopping centres are still very relevant in terms of helping small businesses to grow by being able to have that collective customer advice under one roof and providing facilities for them, you know, toilets and parents' rooms and air conditioning and all of those things (x).*

The centre manager also supported the findings of the focus groups that independent SME speciality store retailers can gain the trust and confidence of their consumers through a physical presence, which would then support or assist them in offering products online. As (x) stated: *"For me, if it's a nice brand to me, I'll risk it. Because I have generally got an idea how that product might fit me, because I have experienced it before"*.

However, most participants felt that the success of independent SME speciality store retailers as online stores was largely dependent on the product category. As one participant (R5) explained:

*If it's a new pair of running shoes, books, that kind of stuff then yeah, so it's going to be more of chain stores rather than the speciality stores. It has to be the repeat purchases where I look online, I reckon (R5).*

Price is an important consideration, but within the online environment, it is about knowing and trusting the product, therefore many consumers want to feel comfortable and have trust in what they are purchasing. Consumers' choice of chain

stores (Kmart or Adidas) over independent speciality stores indicates a sense of trust in knowing that the retailer will provide the product they desire.

Nevertheless, the focus groups' suggestion that the success of the independent SME speciality retailers as online stores will depend on the product category is supported by a recent industry report (National Australia Bank, 2017). According to the report, SME online retailers have success only in three product categories: homewares and electronic appliances, personal and recreational products, and fashion products (National Australia Bank, 2017).

#### *Non-repetitive purchase*

As highlighted by a number of focus group participants, a challenge for independent SME speciality store retailers is consumers' preferences for non-repetitive purchases. Independent SME speciality store retailers must compete through quality service and provision of unique products at higher price points in order to sustain their competitiveness,

*What I would buy from speciality stores are things that won't repeat. Like I got this cardigan but this is not something that I buy every day, which I buy every couple of years, something like this, so am not going to buy the same item in different colours (R8).*

Consequently, focus group participants considered e-commerce and social media to be important tools for the independent SME speciality store retailers in spreading awareness of their products and services to potential customers,

*Nowadays people are more aware of technology and social media, especially Facebook, so some websites may link it to Facebook and advertise it to you based on the city you are living in. So immediately there is a shop you don't know about it, comes to you in Facebook and you watch it, which then creates that opportunity for customers to visit the shop and know the brand more (R3).*

The above statement by (R3) also indicates that electronic forms of communication can be useful in attracting new residents who have recently moved into a new city or

tourists looking for a particular product in an unfamiliar market setting. In the current study, a public university is located within the case study trade area that regularly brings in international students/scholars and visitors (see Chapter 3 Section 3.2.1). Hence, electronic form of communication can help these new residents to find their preferred store or shopping destination.

#### **4.5.1 Ways to capture consumers' attention while online shopping**

A challenge for small independent retailers' online stores is how to attract shoppers when online shopping is mostly related to price. The focus groups suggested that the best way for independent SME speciality store retailers to get the attention of shoppers was for their online stores to offer a combination of distinct promotional offers. As participant (R8) suggested: *"If the speciality store is trying to get you to shop online then they need to get to you through discounts or other sorts of promotional activity"*. An example of a combination of a promotional offer on an online platform would be that when a shopper is purchasing a shirt, they could be offered matching trousers at a discounted rate. If consumers perceive a sense of satisfaction from the promotional offer, they may either make a direct online purchase or decide to visit the physical store.

Many focus group participants indicated that browsing in small independent speciality stores was mostly related to an individual's interest or hobby. For example, one participant (R6) noted: *"I will visit a speciality store that I am interested in, only like the technology or books or whatever hobbies I have"*. Hence, they also acknowledged browsing more often for such products in-store or online to keep updated with current trends,

*Browsing online stuff maybe when I am not going to stores. Speciality stores, I wouldn't really browse online. I would only browse in stores and of my interest, say I would go and browse speciality stores anytime that deal with shoes like Converse, but only a certain store sells a certain product, so I might go online as I know they are the only store that sells that particular item (R2).*

The independent SME speciality store retailer can target its potential customers through social media and online shopping by identifying shoppers' product interests and hobbies. They can also ascertain whether renting a physical store (i.e., long term) within the catchment area is beneficial to them.

#### **4.5.2 Ways to retain consumers' interest in browsing in-store**

The risk of lower frequency of shopping centre visits for browsing activity will still be pertinent with increasing confidence in online shopping and increased familiarity of speciality products due to frequency of online purchases. However, the amount of stock a small independent speciality store can carry is very small in comparison to that held by larger size chain stores (e.g., Kmart), and particularly online e-commerce platforms. This provides an opportunity for small independent speciality stores to change/update their product offerings from time to time. Frequent editing of product offerings disrupts shopper familiarity with the products and can lead shoppers to return to in-store browsing. As one respondent noted:

*If I can get the product online, then I would purchase it online rather than visiting a store. But some speciality shops, like the homewares stores not the chain stores but the individual ones, the stock changes all the time, whereas the chain stores carries the same stock all the time (R5).*

Small independent speciality stores also have the flexibility to negotiate the price on the spot and build a better relationship with customers, which may not be achieved in online shopping. This flexibility is one important area in which the shopping centre manager anticipates that small independent speciality stores can perform better than chain stores.,

*...for independent retailers rather than national retailers you might have some flexibility at the point of sale to negotiate with the customer, often do a value-add on the spot by having that customer relationship and interpersonal relationship and being able to read the customer. And also listening to the customer's need, which you can't really do in online shopping. I think there is opportunity there for the speciality store and shopping centres (x).*

Thus, independent SME speciality store retailers can keep their customers engaged, both in-store and online. This will enhance the competitiveness of independent SME speciality retailers.

The shopping centre manager recognised the challenges faced by small independent speciality stores when competing against online shopping platforms, especially in terms of the convenience factor,

*I think the challenge with online shopping is 24 hours a day and people can do it whenever it suits them. But, at the same time, it's a different experience and sometimes it can be hard finding exactly what you need online because the options are endless and it requires lot of surfing and delving deep into the internet. I do online shop but I find that I do a lot of research for product and especially if it's fashion then I will go in the centre to have a look closely at that item or try it on. But, definitely the challenges are the convenience factor of online shopping that would be the number one. The fact that our community is becoming more time poor and so having that opportunity to do that anytime, even in your lunch break at work possibly. That's probably one of the challenges that we have. Sometimes the variety of the stock is another challenge for specialty stores to be able to stock the range that can be found online. So matching up with that can be also a challenge as well (x).*

Nevertheless, most focus group participants and the shopping centre manager reached consensus that online shopping is beneficial in acquiring product information, but it does not always lead to online purchases, especially of products that are associated with higher risk (i.e., opportunity-based and uncertainty-based risk). However, increasing brand or store awareness over time and developing trust, confidence and an appropriate refund policy for online purchases are likely to influence consumers' use and frequency of online shopping. Yet, the security and trust of online shopping continue to be of major concern, and therefore shopping centres are well positioned due to their perceived safety and the shopping experience. The findings of the current research highlighted that despite the online presence, focus group participants still preferred to browse speciality stores at the shopping centre. Therefore, section 4.6 will

identify the influence of extended trading hours on in-store consumers' browsing behaviour and its impact on categorised shopping centres.

#### **4.6 Influence of extended trading hours on consumers, shopping centres and independent SME retailers**

This section aims to delineate how the provision of extended trading hours (i.e., late evening hours) during weekdays can influence consumers' in-store browsing behaviour, and its implications for independent speciality stores in categorised shopping centres. Additionally, this section also identifies shopping centre patronage during extended trading hours.

Most focus group participants indicated that the trading hours of the shopping centres in Australia were shorter in comparison to many other countries. This is unsurprising, given the research sample and the resident population of the shopping centre trade area investigated in this research, which were comprised of a large Asian community (see Chapter 3, Section 3.2.1). There was a suggestion that extended trading hours (i.e., late evening hours) on more than one day could improve shopping convenience. One of the participants expressed that extended trading hours on weekdays would enable the shopping centre to cater for the needs of diverse customers, especially the Asian community which prefers shopping late in the evening:

*Here in Australia I kind of feel like if they can have more extended hours just for shopping convenience. I heard about other countries opening stores 24/7, for example in Japan and there are still people shopping late at night. You know everyone has a different schedule and it works out (R8).*

The shopping centre manager also noted: *"Asian customers do tend to shop more regularly and come out to eat more regularly. Usually in the Asian demographic, we find customers do come out later in the day or they want to stay out late" (x).*

However, retail trading hours in the state of Queensland are strictly regulated under the *Trading (Allowable Hours) Act 1990* (Business Queensland, 2017). Retailers and shopping centres need to comply with existing regulations, despite shoppers' demand for extended trading hours. This regulation is considered vital in protecting the

competitiveness of the smaller shopping centres as it disperses the frequency of shopping visits (Baker, 2002; Baker and Wood, 2010). However, the regulation also poses challenges for some retailers. For example, a boutique store may benefit more from afternoon to late evening trading hours rather than opening early at 9am. Yet there are limitations on retailers from the shopping centres in terms of breaches to lease agreements. Shy and Stenbacka (2008) found non-uniform retail trading hours also imposed inconvenience and perceived costs on accessing shopping centres on consumers (i.e., transport). Thus, non-uniform trading hours do not support the welfare (time flexibility) of shoppers, especially those shoppers intending on one stop shopping. The non-uniformity of trading hours within shopping centres has the potential to adversely affect shoppers' browsing behaviour and ultimately, the shopping centre environment. The shopping centre manager articulated the complexity of extended trading hours.

*Yeah 'cos while the labour cost is so high, it is difficult to just give an extension of trading hours with some flexibility. I am not sure what the answer is to that, because as owners we are little bit powerless as it is legislation that we rely on and then it's trying to get retailers to comply to the same trading hours, whereas different usages, different retailers want to have different trading hours, so it's very complex (x).*

Despite the challenges in the provision of extended trading hours, the centre manager suggested an alternative approach: *"I think possibly we need to be looking at other spheres a little bit more than the trading hours rather than just extending the evening, maybe we should be looking at opening later on"* (x). This statement parallels the findings in the study by Shy and Stenbacka (2006) who suggested that retail trading hours could be adjusted according to peak and off peak shopping hours. For example, the shopping centre could shift the trading hours for all retailers (i.e., excluding the grocery and fast food operators) from 11am to 7pm rather than 9am to 5pm. This approach also aligns with the Asian approach to shopping centres, which usually do not open before 10am or 11am and shut around 9pm or 10pm.

#### 4.6.1 Consumers' welfare

Limited flexibility in the trading hours of shopping centres on weekdays may be one of the possible reasons for the focus group participants', especially the female participants, preference for shopping during the weekend. As one of the female participants noted, *"I feel the weekend is better because the other days people are working"* (R8). In addition, many of the female participants identified their shopping activity as a form of socialisation most of the time. Therefore, the employment status of friends and family members have some influence on shoppers' recreational shopping activity. One female participant explained, *"Shopping is mostly done in conjunction with catching up with friends so it will be during weekend mornings as my friends work full time during the whole week"* (R5).

The focus groups indicated that extended trading hours on weekdays facilitated flexibility and convenience in organised shopping activity. For example, one of the female participants explained: *"I prefer extended hours during weekdays. Usually when you want to go shopping most people are working on other days and so we have to depend on weekends, but sometimes we miss that as we have to go somewhere"* (R3). The main concern with weekend shopping activity, as indicated by the focus groups, was mostly related to its impact on family time. One participant (R4) commented, *"I usually go shopping on weekdays because most of the weekend I go out for family time, so we don't go to shopping centres, so I really need those extended hours"*. These findings augment previous research by Kennedy (2010) who also found that weekend shopping activity may negatively affect family time. Therefore, weekday extended trading hours are essential, especially for those shoppers who are employed full-time, as this allows them to balance the need for shopping activity and family time. For example, one participant noted:

*...sometimes the extended time matters, as for me sometimes I need to rush from work to do shopping. Therefore, I would not really have to run away from work just to do the shopping* (R2).

However, the shopping centre manager noted that the issue of extended trading hours remains highly debatable. Extended trading hours do not support the sustainability of

smaller shopping centres in the presence of larger (regional) shopping centres, as most shoppers are attracted to larger assortments of goods for their browsing activity.

*It's very challenging because then there is that issue with the smaller shopping centre vs. the larger, when you have something like a regional shopping centre in your trade area. Thursday nights have become quite difficult for sub-regional shopping centres even though the retailers are encouraged to open unto 9 o'clock, a lot of them shut early because their perception is that customers will be going to the regional shopping centre on that night time trade. So, it's difficult to convince them and it's a vicious cycle because the less shops that stay open until 9, the less customers come. So, it's tricky to work out what to do with that. Hence, it almost does take away the market share from small shopping centres to some degree (x).*

Therefore, an increase in the frequency of extended trading hours may negatively affect the performance of the smaller shopping centres and their ability to attract/retain retailers.

Regional shopping centres may have a distinct advantage over sub-regional and neighbourhood shopping centres during Thursday night shopping (extended trading hours). Consumers' main reasons for shopping during Thursday late evening hours were related to time efficiency and their interest in ensuring time for family or social activities on the weekends. These findings infer that the Thursday late evening trading hours facilitates shoppers who are willing to engage in both cognitive (goal-oriented) and sensory shopping experiences (recreational-oriented). The reduced attractiveness of sensory shopping experiences within subregional and neighbourhood shopping centres may hinder these centres' ability to generate increased customer footfall for the independent speciality stores during the late evening hours, especially given they are located within a regional shopping centre trade area. Therefore, there is limited economic benefit or imperative for independent SME speciality store retailers in the sub-regional and neighbourhood shopping centres to stay open during late evening hours. This in turn affects consumers' browsing behaviour and the performance of the sub-regional and neighbourhood shopping centres, as shoppers presume that the

majority of the speciality stores are closed in these locations. As one participant observed, *“Yeah the closure of the speciality stores affects the browsing and shopping activity” (R2)*. Thus, consumers’ choice of sub-regional and neighbourhood shopping centres in general during extended trading hours is affected.

#### **4.6.2 Disadvantages of independent SME retailers**

The shopping centre manager also highlighted three key issues which limit the benefits of longer opening hours for independent speciality stores. Firstly, independent SME speciality store retailers are reluctant to stay open, even though they are permitted to trade beyond normal trading hours on weekdays, due to low shopper footfall. The majority of shoppers in regional shopping centres also is likely to demotivate independent SME speciality store to stay open beyond normal trading hours. Costs incurred for speciality stores, such as staff wages, erodes profitability. As the shopping centre manager commented:

*They are permitted to trade until 9pm weekdays, the only actual core trading hours or day they are expected to trade is Thursday till 9pm but they do have allowable hours to 9pm on other days, but they wouldn’t do it because of the labour cost (x).*

Secondly, retailers may have to increase staff remuneration for working overtime on days offering extended trading hours, as per Australian government legislation. Referred to as ‘penalty rates’, this is monitored by the Department of Fair Work Ombudsman an independent statutory body introduced by the Government of Australia under the Fair Work Act 2009 (Fair Work Ombudsman, 2018). Penalty rates are challenging for small independent speciality stores, as they are not able to increase the prices of their products or services due to high market competition. This places small independent speciality stores under pressure, as they need to make more sales during extended trading hours in order to cover increased staffing costs. As the shopping centre manager noted: *“The penalty rates in the evenings are incurred after certain number of hours worked, so really is a detractor for opening longer” (x)*. Thus, extending trading hours can increase the financial risk for independent SME speciality store retailers.

Thirdly, the lifestyles of the retailers may be negatively impacted if they decide not to employ any staff during extended trading and work the hours themselves. Independent SME speciality store retailers do not need to comply with the above regulation if they intend to take up the role of the staff, and this may impact on their mental state. As the shopping centre manager stated: *“If it is not a cost in terms of labour, it is a cost in the lifestyle for independent traders because they end up working themselves and they are working very long hours” (x).*

Consequently, the subregional and neighbourhood shopping centres have found it difficult to negotiate with the independent SME speciality store retailers, in relation to staying open beyond the one required extended trading evening.

#### **4.6.3 Consequences of restricted trading hours**

The consequences of not complying with shoppers' needs (i.e., flexibility in trading hours) may affect the image and patronage of the shopping centre. As one participant explained: *“I would not buy because I would be annoyed as I have to come back another time to get the product” (R5).* This situation may influence the shopper to try other shopping destinations. As one participant indicated: *“Yeah I do prefer to visit the closest shopping centre if the store I visited is already closed”(R7).* However, the option of reaching the independent speciality stores through online shopping is considered a nuisance once the shopper is in-store. Shoppers expect to gain instant gratification and convenience by shopping in-store because they do not have to wait for delivery, as is the case in online shopping. As one participant commented: *“If I am rushing to the stores I want it there and it doesn't make sense to get it online” (R2).* This view was supported by the shopping centre manager who also noted that the impact of limited trading hours was detrimental to the economic growth of both the shopping centre and speciality stores. The manager commented: *“So there will be some pressures economically for small retailers around that I know”(x).*

Shoppers who perceived that they experienced greater shopping inconvenience due to restricted trading hours were likely to shop on days with extended trading hours. As one participant noted: *“That's why I choose Thursday, so sometimes if I go in the morning for shopping. I am always in a rush and also since I come from a country where shops are open till late” (R4).* Thus, the demographic profile of the trading zone

may be a consideration in determining extended trading hours. For example, in the current study it was evident certain centres would benefit from late evening trading hours, as they cater to predominantly Asian communities which prefer to shop during the late evening hours.

#### **4.6.4 Impact of liberalisation of trading hours on short-term leasing**

There are opportunities for Australian decision makers to realign shopping centre trading hours with consumers' expectations and needs. The shopping centre manager believed that consumers' needs and wants do facilitate changes to trading hours over time, although these changes may have a negative impact on independent speciality retailers as the competition opens up. One negative consequence would be the longer time period in achieving the break-even point for retailers making a financial investment in late evening opening (extended trading hours). This in turn will affect the retailers, especially the newly established independent SME speciality store retailers, who intend to rent a physical store on a short-term or 'pop up' basis. As the shopping centre manager noted:

*I think Queensland's trading hours are quite contentious, and we even recently have had changes which are exciting from our perspective. But at the same time, we can't help but think of the little independent traders who then have to pay for staffing for longer hours, and will their return be there, and there will be a period of adjustment for buyer behaviour. So they may not see return immediately and that might take some time. But there is a little bit of ambiguity around trading hours, I think all over Australia. So, there is some opportunity there, I think (x).*

Perhaps introducing an online store could support those independent SME retailers who aim to lease a physical store for a short term. After acquiring the trust and confidence of the consumers by renting a physical store for a short period, an online store would enable an independent SME retailer to remain connected to their existing/current customers. This approach may to some extent help independent SME retailers to survive for a longer period.

#### 4.6.5 Cooperation between independent SME retailers and shopping centres

The centre manager addressed how independent SME speciality store retailers can benefit by being located within the shopping centres. As this expert (x) suggests: *“Our marketing strategy is overarching so you don't have to have as large scale marketing strategy of your own because the shopping centre is bringing the customers for you”*. Megicks and Warnaby (2008) also found that stand-alone independent SMEs usually suffer from inferior market orientation, largely due to their limited marketing knowledge and financial capability. Therefore, for independent SME speciality retailers, being located within the shopping centre would increase footfall and reduce excessive marketing expenditure.

The shopping centre manager explicitly outlined the requirements for leasing space within the shopping centre. Leasing requirements are based on the retailer's target market and their financial capability (related to rental). This enables shopping centres to attract potential retailers who align with their market orientation. Consequently, the shopping centres are very particular when renting space to various retailers,

*I guess it's a two-way thing, they identify us and we identify them and a lot of that's based around rental, what they can sustain from a rent perspective, the cost of doing business, determining the size of the shopping centre sometimes they want to go into but also demographics. So, shopping centres are quite good at identifying their customer bases and being able to communicate with the potential retailers and then whether they are good for each other (x).*

The key to success for both the shopping centres and the retailers is to coordinate the available resources effectively to maximise business opportunities, whilst informing the potential retailers of the need to adhere to the prevailing trading norms under that particular jurisdiction. The centre manager explained how shopping centres and retailers can effectively maximise the opportunity,

*I think that it is about getting to know customers and knowing what their expectations are, what their needs are, and adapting to that as much as possible within budget constraints and within legislative*

*constraints when you think about trading hours, and then just trying to enhance the customer experience in the centre to meet those needs and those expectations. (x)*

Nevertheless, participants concluded the focus group discussions by making it explicit that the challenges for in-store browsing have not changed in recent years. As one participant noted: *“Back in the old days you didn’t really browse because you didn’t really have time. Like if you had to go buy something on the weekend you have only three hours and you are more focused in what you are buying” (R5)*. Constraints on consumers’ time are still pertinent in the current retail environment, but the shopping centre manager believes that the changes in the retail environment could be positively reinforced with the use of technology. As the centre manager stated: *“Online is where the people are at all times whereas we are at a fixed physical location and they have to come to us, whereas the online goes to you” (x)*. However, online shopping has certain limitations, such as the lack of instant gratification and trust. Instead, online shopping can be beneficial to shopping centres, retailers and shoppers. For example, shoppers who prefer one-stop shopping (i.e., both objective and recreational shopping) can determine their destination according to the information acquired online (such as opening hours, parking facilities and product information). This enables shoppers to plan their schedule accordingly and be more efficient. As for the shopping centres and retailers, the advantages of online shopping are discussed in the next section.

#### **4.7 Opportunities for shopping centres and independent SME retailers in integrating online shopping**

The shopping centre manager indicated that the future trend for leasing in Australian shopping centres would be influenced by online shopping. For example, the established purely online retailers would consider renting a space in the shopping centre to expand their market, and this in turn will reinforce in-store consumers’ browsing behaviour,

*I think that another trend that I saw when I was overseas (United States of America) is that a lot of online retailers, emerging online retailers that are successful online but they are looking to grow their businesses, are coming back into bricks and mortar to have physical contact with*

*customers. They are using their own databases to identify which shopping centres they want to be located within to grow their customer base based on word of mouth. (x)*

Supplementing their online retail offering with a tangible store presence would assist in overcoming some of the challenges associated with online shopping (discussed in Section 4.5).

The centre manager indicated that word-of-mouth was one of the approaches the established purely online retailers are using to target new customers. These findings align with those by Kuan and Bock (2007), who found word-of-mouth to be one of the most important elements or sources of information influencing shoppers to increase their trust and chances of viewing, and becoming familiar with, websites they have never come across. They also found that the word-of-mouth approach was more likely to be successful when an online retailer had a physical presence. The reason is that a store's physical presence was found to reinforce the word of mouth approach in enhancing consumers' perceived level of trust in an online retailer. Kuo, Hu, and Yang (2013) found that the expenses incurred by the purely online retailers (i.e., without any physical presence) in trying to expand their market share were five times more than the cost in retaining their existing customers. In discussing these trends, the shopping centre manager anticipated that established purely online retailers would look to enhance service offerings by pursuing potential customers within a particular geographic centre based on their customer database. The manager provided ideas on how to accommodate such changes in shopping centres with more focus placed on the aspect of leasing,

*So once you are in centre the customers who know them well in that area will then be able to communicate with other customers who are not online to visit their mini-physical environment and so they are growing their businesses. It is quite a trend with what is happening in overseas retail environment and they may not want to take long-term leases within shopping centres. But shopping centres were adapting to provide more short-term leases for online emerging businesses and in getting brands to come into centre that were complementary to the brand that*

*were already there and improving customer experience in that regard as well. So, that's exciting, I think that will definitely filter across Australia eventually, in probably the not too distant future (x).*

The short-term leasing approach could be one of the possible options for shopping centres when tackling a changing retail environment driven by technological advancement. This will make the shopping environment more dynamic, and this may increase the probability of a consumer engaging in browsing activity. Yet, there is a higher need for flexibility in shopping centre management to adopt such changes. As Roberts, Merrilees, Herington, and Miller (2010) found, Australian regional shopping centres were rigid in adapting to changes in comparison to smaller shopping centres. In other words, smaller shopping centres such as the sub-regional may be more efficient than regional shopping centres in facilitating retailers with short-term leasing. The opportunity for purely online retailers to have a physical presence might be the ability to provide a pick up and return portal for customers, thus enhancing the ease of procuring products online. Furthermore, the purely online retailers can offer experience (i.e., sensory) with top-selling products within these catchment areas. For the shopping centres, short-term leasing to established purely online retailers may create enthusiasm amongst shoppers, and in turn, this may influence consumers to engage in in-store browsing. This might also present the opportunity for shoppers to engage with existing independent speciality store retailers, therefore enhancing the visibility of independent speciality stores at sub-regional shopping centres. The negative side for leasing to purely online retailers in a shopping centre is that these retailers have the capability of marketing their products through low pricing (Cao, 2014), which an independent speciality store lacks. Therefore, if the independent speciality stores are not able to differentiate product offerings from those of the purely online retailers, they are likely to lose their competitiveness. This is concerning especially as Lamberton and Diehl (2013) found that consumers choose price when they perceive similarity in their satisfaction with the available product options.

For such trends to be realised, the shopping centre manager suggested that the independent SME speciality store retailers need to learn how to capitalise on the advantages of online shopping through education and training. It would be essential for small retailers to have certain technical skills and knowledge of e-commerce in

order to successfully implement their business model/plan. However, ignoring the significance of online shopping will only hinder the economic growth of small retailers. As the centre manager commented:

*I think it is also about educating small to medium enterprises about not being afraid of the technology and embracing it, rather than keep letting it just be for big business. I think this is probably why a small retailer can be engaged in technology as well, and I think that Australian retailers might just need to catch up little bit with that but it's definitely happening (x).*

As the centre manager concluded overall Queensland shopping centres have a lot to offer and there are certain market segments (i.e., the tourist market) that are yet to be capitalised on due to restrictions on trading hours. Reisinger and Waryszak (1994) also identified that tourists, especially those from Asia, experienced high dissatisfaction with their shopping activities in Australia due to restricted trading hours. This was mainly due to: 1) unfamiliarity with the retail setting and language/communication barriers; and 2) cultural factors (i.e., shops in Asian countries are generally open until late evening). Asian tourists also tend to buy a lot of gifts and souvenirs for their families and friends when they are travelling to other countries (Li, Lai, Harrill, Kline, and Wang, 2011; Reisinger and Waryszak, 1994). The time-sensitive nature of travel and tourism also necessitates the need for instant gratification from shopping experiences whilst travelling. According to the Australia China Business Council (October 2017) report, Chinese tourists accounted for the second largest market for Australian tourism. Hence, the provision of extended trading hours for shopping centres and retailers could attract a large number of Asian tourists to Australia to engage effectively in shopping activities. In the current study, the provision of extended trading hours will encourage those tourist that are visiting friends and relatives that may live in the case study area. Furthermore, the presence of a public university in the case study area (see Chapter 3 Section 3.2.1) will also regularly bring in international scholars and visitors that may choose to stay and shop within the case study area,

*I think we definitely need to be offering more to be able to compete with online. So, hopefully this is a good step in the right direction and also helping tourist to engage more in retail and I think that's probably being something that the state of Queensland hasn't done that well in the past (x).*

This section discussed how shopping centres, especially the sub-regional shopping centres, could sustain their competitiveness in the digital economy. Despite regional shopping centres having an edge during weekday late evening (WLE) trading hours, sub-regional shopping centres do have an opportunity to attract shoppers for browsing activities by establishing a platform for small online traders through flexible leasing facilities. Meanwhile neighbourhood centres will still be relevant in providing the daily shopping needs of the consumers due to their proximity.

#### **4.8 Conclusion**

This chapter has served to highlight the thoughts, perceptions and opinions of the research participants as part of the exploratory qualitative data collection phase. The two focus groups and one personal interview with the shopping centre manager have been used as a narrative to provide insights into the nature of challenges associated with SME retailers, independent speciality stores in categorised shopping centres and the impact of online shopping on in-store browsing.

During the extended trading hours, regional shopping centres were the preferred shopping destination for most of the focus group participants and this was also acknowledged by the shopping centre manager. The main reason indicated by most focus group participants for shopping during WLE trading hours was related to not wanting to impact negatively on family activities during the weekends. Therefore, a larger-sized shopping centre was sought as a means of one-stop shopping to fulfil both cognitive and sensory shopping objectives. In this context, shoppers usually travelled further distances (i.e., residents residing close to a neighbourhood shopping centre may elect to travel to a regional shopping centre more often during extended trading hours). This implies that shoppers are willing to travel to bigger shopping centres despite the difficulties in ease of accessibility. Teller and Elms (2010) found similar results, where the negativity of ease of accessibility was offset by the shopping centre

orientation. In addition, the presence of shoppers' preferred store/brand and the availability of a variety of products enhances in-store browsing activity, which is the other reason why shoppers choose a regional shopping centre during extended trading hours.

Shopping centres that can induce fun-filled shopping experiences were found to influence shoppers' physical movement within the shopping centre and reduce the aspect of choice overload. As Park, Yu, and Zhou (2010) found, shoppers were less affected by choice overload when they adopted a sensory shopping approach (i.e., shopping with abstract mindset). Consequently, this can create economic opportunities for the shopping centre, as shoppers who enjoy browsing are likely to make impulse purchases. Impulse purchases were more common for female shoppers than male shoppers. Nevertheless, these findings are important for shopping centres, as the majority of people visiting shopping centres in Australia are female shoppers (Bailey, 2013).

Shoppers were generally distrustful of online shopping, and this affected the desire for instant gratification, thus influencing shoppers to purchase in-store. However, online shopping is considered useful in gathering information, especially about speciality products which carry an opportunity-based risk. Speciality products are also generally non-conventional products which are purchased occasionally. Thus, consumers are likely to acquire information on the best deal available in the market through e-commerce and then determine their shopping destination. Thus, online shopping can be advantageous for shoppers.

The shopping centre manager also emphasised that speciality products may require customer assistance because of the novelty of the product. Independent SME retailers tend to be less effective in communicating with consumers online. Hence, this influences shoppers, necessitating that they actually visit the store to acquire customer assistance. However, shoppers who require customer assistance from independent speciality stores are likely to face inconvenience due to these stores' limited trading hours (9am to 5pm). Therefore, the WLE trading hours are likely to facilitate shoppers who need customer assistance prior to acquiring speciality products.

Chapter 4 concludes by highlighting the unique strengths of both the shopping centre and e-commerce as identified in this research (see Table 12).

Table 12 Strengths of shopping centres and e-commerce

<b>Sl.no</b>	<b>Shopping centre</b>	<b>Online shopping</b>
1	Instant gratification	Cheaper price
2	Safer transaction of cash/credit on purchase of goods and services	Advantageous in bulk purchasing as the cost of delivery is reduced
3	Opportunity to touch and feel the product can enhance the selection of right product quality	Able to ascertain the availability of product in a physical store
4	Easy product return	Able to browse for discounts with less physical effort
5	Effective communication	Time saving

Chapter 5 will present the results of the quantitative analysis.

## Chapter 5: Quantitative Analysis

### 5.1 Introduction

Chapter 4 identified the qualitative variables that influenced in-store browsing and online shopping behaviour and the reasons for shopping during extended trading hours. As the methodology chapter discussed there are limitations to qualitative research, as it cannot be generalised to a larger population. To overcome these limitations a survey was conducted to enable the findings of this research to be generalised. The constructs<sup>9</sup> and the variables that could be measured (to substantiate the constructs) were derived from the literature review. Chapter 5 tests the significance of the constructs through statistical analysis with a larger population (within the sub-regional shopping centre trading area). This chapter reports the quantitative data derived from questionnaires using closed ended questions. The structure of Chapter 5 is outlined in Table 13.

Table 13: Structure of Chapter 5

Section	Research Question
5.2 Study sample	-----
5.3 Confirmatory Factor Analysis	<ul style="list-style-type: none"><li>i. Does consumers' experience any choice overload and inconvenience in seeking customer assistance when browsing during restricted retail trading hours?</li><li>ii. What is the probability of using e-commerce to obviate the need for customer assistance in store and reduce choice overload?</li></ul>

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<sup>9</sup> "Construct is an unobservable or latent concept that the researcher can define in conceptual terms but cannot be directly measured or measured without error" (Hair et al., 2014, p. 543).

5.4 Consumer browsing behaviour and choice overload	i. Does a pre-determined purchasing objective enhance the visibility of independent speciality stores when browsing and/or shopping in a regional shopping centre?
5.5 Distance to shopping centre	i. Does the usage of e-commerce have any significant impact on consumers' preference for shopping on days offering extended retail trading hours?
5.6 Online product comparison and pre-determined purchase objective	
5.7 Restricted retail trading hours and shopping inconvenience	
5.8 Shopping preference on days having extended retail trading hours	

## 5.2 Study sample – quantitative analysis

The sample size was controlled based on gender in order to represent the target population visiting shopping centres in Australia. Bailey (2013) reported the Australian shopping centre customer ratio was 70% female and 30% male. In the current study, the stratified random sampling also comprised 30% male and 70% female respondents. Furthermore, the sample was limited to young adults<sup>10</sup> and the middle aged, as they are the dominant age groups making online purchases (National Australia Bank, 2015a).

A total of 287 completed surveys were collected over a period of 24 days through a mall intercept process used at a sub-regional shopping centre. Young adults represented 77% and middle-aged respondents 23% of the study sample. Since the

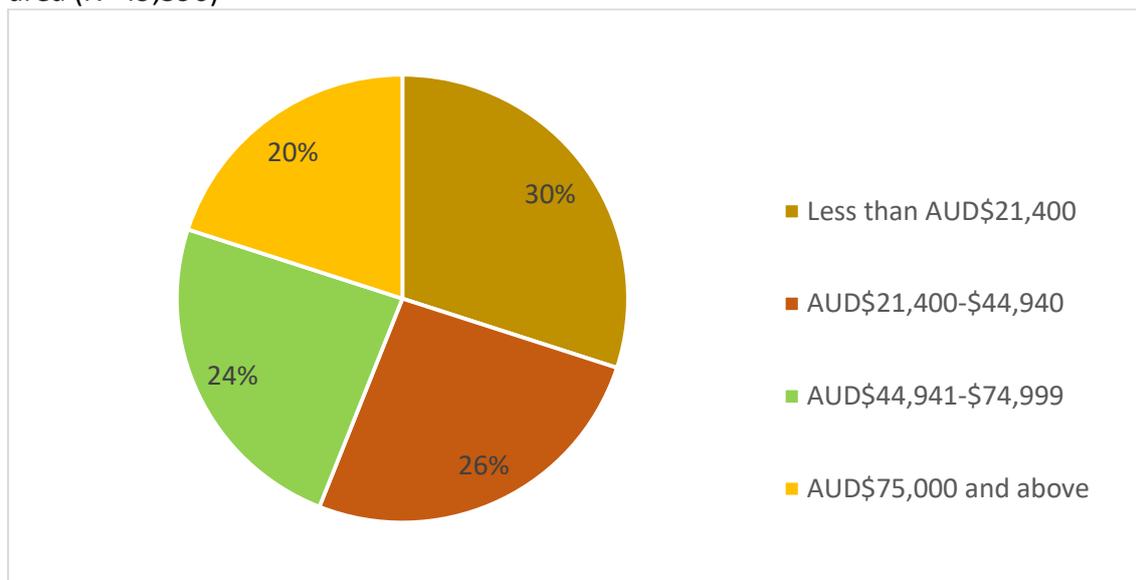
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<sup>10</sup> According to (Australian Bureau of Statistics, September 2012) the age range from 18 to 34 are considered as young adult and the age range from 35 to 54 are regarded as the middle aged group (Australian Bureau of Statistics, January 2012).

current research was focused on consumers' in-store browsing behaviour, the high composition of young adults in the study sample was considered acceptable.

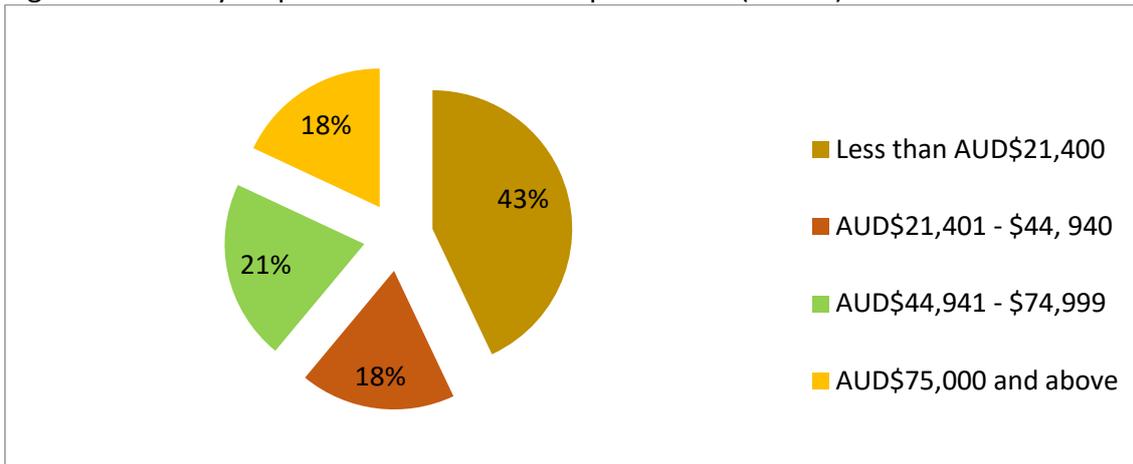
The income level of the respondents in this study was over-represented by those with an annual income below AUD\$21,400 p.a. compared with the average income level of residents within the sub-regional shopping centre trading area, which was AUD\$49,994 p.a. (Australian Bureau of Statistics, 2016a) (see Figures 15 and 16). The high representation of the low-income group in this study sample may indicate that the shopping preference for the sub-regional shopping centre investigated in this research is likely to be greater for lower income groups due to the shopping centre orientation. For example, retailers who specialise in hospitality retailing (i.e., restaurants) predominantly lease spaces in the sub-regional shopping centre (Retail First, n.d.). Thus, the current study is in line with the work of Allard, Babin, and Chebat (2009), who found that higher income shoppers have lower patronage of shopping centres when it comes to recreational or social activities in comparison to lower income shoppers. Even though the presence of high percentage of low-income group in the sample, the current study has surveyed large quantity of high-income group individuals proportionate to the population of the case study area.

Figure 15: Individual income level per annum in sub-regional shopping centre trade area (N=49,596)



Source: (Australian Bureau of Statistics, 2016a)

Figure 16: Survey respondents' income level per annum (N=287)



The next section (5.3) identifies the validity of the construct derived from the literature review (see Table 14). The construct validity<sup>11</sup> was analysed through Confirmatory Factor Analysis, as recommended by Campbell and Fiske (1959).

Table 14: Latent variables model

Latent variables	Measurable variables	Variable Type	References
Choice overload	Perceived level of visibility of speciality stores at regional shopping centre	Independent	(Chernev et al., 2015; Messner and Wänke, 2011; Townsend and Kahn, 2014)
	Perceived level of visibility of speciality stores at neighbourhood shopping centre		
	Frequency of impulse purchase		
The Technology Acceptance Model (TAM)	Perceived level of trust in online shopping for speciality products	Independent	(Grabner-Kräuter, 2003; Klein and Ford, 2003; Weltevreden, 2007)
	Frequency of online product comparison for speciality products prior to purchasing in-store		
	Frequency of shopping centre visits with pre-determined purchase objective		

<sup>11</sup> "Construct validity is the extent to which a set of measured variables actually represents the theoretical latent construct those variables are design to measure" (Hair et al., 2014, p. 601).

Customer assistance during restricted trading hours	Perceived level of shopping inconvenience due to shorter trading hours of the speciality stores	Independent	(Goodman and Remaud, 2015; Huddleston and Huddleston, 2010; SafeWork, 2013)
	Frequency of customer assistance required when shopping for speciality products in-store		
	Frequency of online purchases due to limited trading hours of the speciality stores		
Huff's Gravity Model	Perceived level of preference for shopping on days offering extended trading hours	Independent	(Baker, 2002; Baker and Wood, 2010; Goodman and Remaud, 2015; SafeWork, 2013)
	Perceived level of importance of distance to shopping centre when shopping for speciality products		
	Frequency of shopping visit to regional/subregional/neighbourhood shopping centre during extended trading hours		
Elements enhancing in-store browsing	Availability of variety of products	Mediating	(Bloch, 1982; Goodman and Remaud, 2015; Jarboe and McDaniel, 1987)
	Presence of preferred store/brand		
Consumer in-store browsing behaviour	In-store browsing time spent during goal-oriented shopping visits	Dependent	(Bloch and Richins, 1983; Jarboe and McDaniel, 1987; Xia, 2010)
	In-store browsing time spent during recreational shopping visits		

### 5.3 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was employed to identify the validity of the construct that was generated through the literature review. The CFA was computed using R software with a Structural Equation Modelling (SEM) package, as suggested by Jöreskog (1969). The measurement scale in the current study consisted of both ordinal and ratio scales, therefore the assumption of normal distribution in computing CFA was violated (Yanyun and Liang, 2013). Previous studies by Bryant and Jöreskog (2016) and Yanyun and Liang (2013) recommended the use of Polychoric<sup>12</sup> and Polyserial correlation matrices when there is a non-normal distribution as an alternative in calculating the CFA. The covariance matrix was replaced by the correlation matrix as suggested by Yanyun and Liang (2013). Furthermore, Wallentin, Jöreskog, and Luo (2010) found the Polychoric correlation matrix to show high accuracy in the result based on two, five and seven point ordinal scales when computing the CFA. Hence, the Polychoric and Polyserial correlation matrices were calculated in R software using the 'Polycor' package with the 'Hetcor' function (Fox, 2016). The 'Hetcor' function enables the combination of the calculation of Pearson Product-Moment, Polychoric and Polyserial correlation into a single correlation matrix.

The Confirmatory Factor Analysis (CFA) adopted the maximum likelihood in identifying the model/construct as a good fit using the correlation matrix. Flora and Curran (2004) expressed concerns about using maximum likelihood to calculate CFA for an ordinal scale, as it tends to generate some biasness in the result, especially the chi square test<sup>13</sup> and in turn, usually rejects the model/construct due to the non-normal distribution. Similar output was identified in the current research (see Table 16). Yet previous studies by Wallentin et al. (2010) and Yanyun and Liang (2013) have computed CFA using maximum likelihood for scales with a non-normal distribution. Hu and Bentler (1999) suggested considering other fit indices such as the Comparative Fit Index (CFI), Root Mean Square of Approximation (RMSEA), or Tucker Lewis Index (TLI) scores in accepting the validity of the construct instead of the chi square test score.

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<sup>12</sup> "The polyserial and polychoric correlation are measures of bivariate association arising when one or both observed variates are ordered, categorical variables that result from polychotomizing one or two underlying continuous variables" (Drasgow, 1988, p. 1).

<sup>13</sup> "Chi square test is a statistical measure of difference used to compare the observed and estimated covariance matrices" (Hair et al., 2014, p. 543).

These fit indices are widely used as they rectify the error of the chi square test that is derived due to non-normal distribution of the data (Hair et al., 2014). Furthermore, the use of a correlation matrix (Polychoric, Pearson Product-Moment and Polyserial) reduces the bias in the standard error (Wallentin et al., 2010). Hu and Bentler (1999) and Hair et al. (2014) suggested that the model should be accepted when two or more fit indices (as listed in Table 15) satisfy the minimum fit criteria. Since four of the fit indices satisfied the fit criteria, except for the chi square test, the model in the current study was accepted as a good fit.

Table 15: Construct Fit Statistics

Fit indices	Test score obtained	Minimum score required for maximum likelihood	Reference
Chi square score	180.36 ( $p=0.000$ )	$P$ value > than 0.05	(Hu and Bentler, 1999)
Degree of freedom	90		
Comparative fit index (CFI)	0.93	Greater than 0.90	(Schreiber, Nora, Stage, Barlow, and King, 2006)
Root mean square of approximation (RMSEA)	0.058	Lower than 0.06	(Hu and Bentler, 1999)
RMSEA CI	0.045-0.083		
Standardised root mean square residual	0.051	Lower than 0.08	(Hu and Bentler, 1999)
Tucker-Lewis index (TLI)	0.90	Greater than 0.90	(Schreiber et al., 2006)

After identifying the model as a good fit, the validity of the construct was analysed based on the convergent validity<sup>14</sup> and discriminant validity<sup>15</sup> of the CFA test score, as proposed by Campbell and Fiske (1959). Fornell and Larcker (1981) conducted the

<sup>14</sup> "Convergent validity is the extent to which indicators of a specific construct converge or share a high proportion of variance in common" (Hair et al., 2014, p. 601)

<sup>15</sup> "Discriminant validity is the extent to which a construct is truly distinct from other constructs both in terms of how much it correlates with other construct and how distinctly measured variables represent only this single construct" (Hair et al., 2014, p. 601).

analysis of the convergent validity through Average Variance Extracted (AVE)<sup>16</sup> and Composite reliability. Hair et al. (2014) recommended that the latent variables should have a minimum score of 0.5 Average Variance Extracted (AVE) and 0.7 Composite Reliability scores in order to consider the construct to have convergent validity. Peterson and Kim (2013) suggested that the Composite Reliability test exhibits better accuracy in comparison to Cronbach Alpha in measuring the reliability of the scale in CFA. Nevertheless, the current study presents both the Composite Reliability and Cronbach Alpha score for the reliability of the scale. Taber (2017) suggested the minimum threshold for Cronbach Alpha should be 0.7. The latent variables in the current study satisfy the minimum threshold as suggested by Hair et al. (2014) in order to achieve convergent validity, with the result depicted in Table 16.

As for discriminant validity, Fornell and Larcker (1981) conducted the analysis by comparing the AVE against the correlation of the latent variable with other latent variables. To consider the construct to have discriminant validity, the AVE score should be greater than the square of the correlation score (Hair et al., 2014). The AVE score for each latent variable was greater than the correlation score (see Tables 16 and 17). Thus, the convergent validity and discriminant validity was identified as being satisfactory in validating the constructs.

Hair et al. (2014) also indicated that the minimum factor loadings in the CFA should be 0.5. However, only one variable (i.e., How often do you purchase goods online due to limited opening hours of the shopping centre?) was below the minimum factor loading of 0.5. Yet the variable was included considering its importance in the current research.

In order to discern the significance of the measured variables in each construct (latent variables), the t value was calculated by dividing the factor loading against the standard error. According to Suhr (2006, p. 7) "Parameter estimates are significant at the 0.05 level if the t value exceeds 1.96 and at 0.01 level if the t value exceeds 2.56". Whereas, if the t value exceeds 1.65 the parameter estimates are significant at 0.10 level (Hazelrigg, 2004). Hence, each measured variable as shown in Table 16 indicated its significance in defining the latent variables.

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<sup>16</sup> "Average Variance Extracted is the average percentage of variation explained among the items of a construct" (Hair et al., 2014, p. 601)

Table 16: Parameter estimates of the Confirmatory Factor Analysis

Latent variables	Measured variables	Types of Measurement scale	Parameter estimates (factor loading)	Std. error	t value	Average variance extracted (AVE)	Composite reliability	Cronbach alpha (correlation matrix)
The Technology Acceptance Model (TAM)	When shopping online (most preferred speciality product for in-store browsing), do you usually have high or low level of trust in online transactions?	Ordinal (5-point)	0.7368***	0.062	11.9	0.508	0.755	0.75
	How often do you compare the speciality product (most preferred speciality product for in-store browsing) online before purchasing it in-store?	Ordinal (5-point)	0.7343***	0.062	11.8			
	How often do you carry a shopping list (either mentally or physically) when visiting a shopping centre?	Ordinal (5-point)	0.6636***	0.062	8.4			
Consumer in-store	In minutes, how much time do you usually spend browsing the	Ratio (continuous)	0.8526***	0.111	7.7	0.645	0.784	0.78 (Pearson

browsing behaviour	speciality product (most preferred speciality product for in-store browsing) when you visit a shopping centre with a specific purpose?							correlation)
	In minutes, how much time do you usually spend browsing the speciality product (most preferred speciality product for in-store browsing) when you visit a shopping centre with a recreational purpose?	Ratio (continuous)	0.7498***	0.101	7.4			
Elements enhancing in-store browsing	Availability of variety of products	Ordinal (2-point)	0.8430***	0.067	12.6	0.561	0.715	0.70
	Preferred store/brand	Ordinal (2-point)	0.6411***	0.069	9.3			
Choice overload	Do you find it easy or difficult to locate the speciality stores you are interested in browsing at Regional shopping centre?	Ordinal (5-point)	0.5268***	0.062	8.4	0.505	0.748	0.73
	Do you find it easy or difficult to	Ordinal	0.8449***	0.065	13.0			

	locate the speciality stores you are interested in browsing in a neighbourhood centre (small local strip centre)?	(5-point)						
	Despite having a shopping list, how often do you make any extra purchases?	Ordinal (5-point)	0.7240***	0.064	11.3			
Customer assistance during restricted trading hours	Do the limited opening hours (9am-5pm) of the speciality stores in a shopping centre cause convenience or inconvenience to your shopping activity?	Ordinal (5-point)	0.9937***	0.072	13.8	0.500	0.725	0.71
	How often do you purchase speciality products (most preferred speciality product for in-store browsing) online shopping due to shorter opening hours of the shopping centre?	Ordinal (5-point)	0.4052***	0.062	6.5			
	How often do you require customer assistance/service	Ordinal (5-point)	0.5898***	0.064	9.2			

	while shopping in the shopping centre for the speciality product (most preferred speciality product for in-store browsing)?							
The Huff Gravity Model	Do you prefer shopping on days that have extended opening hours (9am to 9pm)?	Ordinal (5-point)	0.8799***	0.059	14.7	0.528	0.766	0.74
	How important or unimportant is the distance to the shopping centre to you, while purchasing the product as selected in Q10 (most preferred speciality product for in-store browsing)?	Ordinal (5-point)	0.6593***	0.060	11.0			
	How often do you visit the following shopping centres on Thursdays (during the extended opening hours 5pm-9pm)? – Regional shopping centre?	Ordinal (5-point)	0.6119***	0.060	10.2			

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

The Technology Acceptance Model as depicted in Table 16 indicates that consumers' perceived confidence/trust on e-commerce and the ease of comparing products online influence them to visit shopping centre with pre-determined purchase objective. Huff's Gravity Model indicates size of and distance to shopping centre has a positive significant influence on consumers' preference for shopping on days having extended trading hours. The choice overload factor indicates that the visibility of the speciality stores significantly influences the possibility of impulse purchases and vice versa. As for restricted retail trading hours, consumers shopping inconvenience is influenced by the need for customer assistance.

Table 16 above also indicates that those consumers who tend to browse longer period during objective shopping visit also browse longer period during recreational shopping visit. Furthermore, availability of numerous known and unknown brands positively influences consumer in-store browsing behaviour.

The variances for all latent variables were fixed at 1 when performing CFA as suggested by Hair et al. (2014). Hence, this enables the CFA output to present the correlation scores between the latent variables with the results presented in Table 17. The correlations for most of the latent variables were very low, except for two latent variables, i.e., 'customer assistance during restricted retail trading hours' and 'the Huff Gravity Model'. These variables had a moderate correlation (0.4248) that was statistically significant at 0.01 level. The positive correlation for these two latent variables indicates that respondents' choice of shopping centre and how far they would travel during weekday late evening (WLE) trading hours was influenced by respondents' perceived level (very inconvenient – very convenient) of shopping inconvenience because of restricted retail trading hours.

Table 17: Correlation between latent variables

Latent variables	The Technology Acceptance Model	Consumer in-store browsing behaviour	Huff's Gravity Model	Choice overload	Customer assistance during restricted retail trading hours	Elements enhancing in-store browsing
The Technology Acceptance Model	Square of correlation Correlation	0.017	0.014	0.000	0.000	0.000
Consumer in-store browsing behaviour	0.1311*	Square of correlation Correlation	0.016	0.000	0.026	0.047
Huff's Gravity Model	0.1163	-0.1279*	Square of correlation Correlation	0.010	0.180	0.031
Choice overload	0.0297	-0.0270	0.1018	Square of Correlation Correlation	0.000	0.000
Customer assistance during restricted retail trading hours	0.0117	-0.1613**	0.4248***	0.0634	Square of Correlation Correlation	0.040
Elements enhancing in-store browsing	0.0047	0.2167***	-0.1766**	-0.0206	-0.2001***	Square of correlation Correlation

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

However, Table 17 above also suggests that consumers' in-store browsing behaviour (latent variable) was negatively correlated with the customer assistance during restricted trading hours (latent variable). The correlation was significant at 0.05 level. Elements enhancing in-store browsing behaviour (latent variable) were also negatively correlated with customer assistance during restricted trading hours (latent variable). The correlation was significant at 0.01 level. These results clearly indicate that restricted trading hours have a negative effect on consumer in-store browsing behaviour. Meanwhile, there was a positive significant correlation (at 0.01 level) between consumer in-store browsing behaviour (latent variable) and elements enhancing in-store browsing behaviour (latent variable). This positive correlation suggests that the presence of consumers' preferred stores/brands and availability of a variety of products in a shopping centre enhances the probability of a consumer spending more time browsing in-store. Nevertheless, choice overload (latent variables) had no significant correlation with other latent factors. The current study also found online shopping (TAM) had no major influence on the visibility (i.e., to recall that the store exists) of the independent speciality stores and respondents' shopping behaviour (i.e., in-store browsing time and shopping centre patronage) during weekday late evening (WLE) trading hours. However, usage of online shopping was found to have positive statistically significant correlation (at 0.10 level) with consumers' in-store browsing behaviour. These findings will be further examined in the following sections.

#### **5.4 Consumers' browsing behaviour and choice overload**

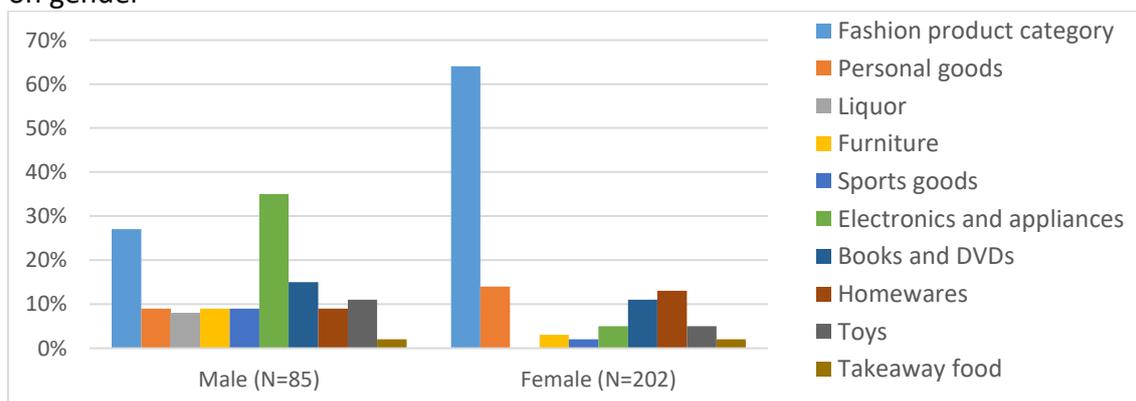
As mentioned in Section 5.3, this research has identified that consumers seeking customer assistance during restricted trading hours had a negative effect (i.e., statistically significant) on consumers' in-store browsing time. However, there was no statistical significant relationship between consumers' in-store browsing time and choice overload. In other words, consumers' in-store browsing time was not a relevant factor influencing choice overload. In-store browsing time was captured to investigate its potential influence on choice overload. Previous studies by Inbar, Botti, and Hanko (2011) and Haynes (2009) found time pressure for shopping activity was the major cause of consumers experiencing choice overload. Therefore, Section 5.4 will further analyse survey respondents' in-store browsing behaviour in relation to choice overload and frequency of impulse purchases.

Bloch and Richins (1983) defined browsing as a form of leisure activity with the aim of acquiring information through the process of examining store merchandise without having any current intent to purchase. Bloch and Richins (1983) further clarified that the intent of purchase while browsing cannot be clearly defined, as this activity may also lead to impulse purchases. Nevertheless, browsing activity was found to enable consumers to distinguish the products and their attributes offered by various retailers, facilitating better decision making in their future purchases and reducing the possibility of choice overload (Goodman and Malkoc, 2012).

In this study consumers' in-store browsing behaviour was controlled by social cognition (as discussed in Chapters 2 and 3). Therefore, in-store browsing behaviour was associated with respondents' most preferred product category for browsing in-stores. Figure 17 presents the most preferred product category respondents would browse in-store when visiting a shopping centre. As Figure 17 depicts 64% of female respondents preferred the fashion product category. In contrast, male respondents were divided between the electronics and appliances product category (35%) and the fashion product category (27%). The high preference for browsing the fashion product category, especially by female consumers, facilitates SME retailers specialising in the fashion product category to survive longer, in comparison to those specialising in non-fashion product categories (The Productivity Commission, November 2011).

The dominance of browsing in-store for fashion products, as evidenced in Figure 17, has resulted in products being categorised as fashion and non-fashion products for the remainder of the analysis. This will facilitate computation of statistical analysis, as it will reduce the missing cells.

Figure 17: Respondents' most preferred product category for browsing in-store based on gender



After respondents recorded their preferred product category for browsing in-store, they were asked to rank the different sources of information in acquiring product knowledge (see Table 18). Google/online searches were the most preferred source of information across all survey respondents.

Table 18: Respondents preferred source of information based on gender, browsing behaviour and product category

Preferred source of information	Browsing behaviour			Gender		Product category	
	In-store browser	In-store non-browser	Online browser	Male	Female	Fashion product	Non-fashion product
N	169	118	46	85	202	152	135
Google/ Online search	Rank 1	Rank 1	Rank 1	Rank 1	Rank 1	Rank 1	Rank 1
In-store browsing	Rank 2	Rank 2	Rank 3	Rank 3	Rank 2	Rank 2	Rank 2
Word of mouth	Rank 3	Rank 3	Rank 4	Rank 2	Rank 3	Rank 3	Rank 3
Social media	Rank 5	Rank 5	Rank 2	Rank 5	Rank 4	Rank 5	Rank 5
Advertisement	Rank 4	Rank 4	Rank 6	Rank 4	Rank 5	Rank 4	Rank 4
Article and blog post	Rank 6	Rank 6	Rank 5	Rank 6	Rank 6	Rank 6	Rank 6
Press	Rank 7	Rank 7	Rank 7	Rank 7	Rank 7	Rank 7	Rank 7

Despite Google/online searches being the most preferred source of product information, 58% of the respondents indicated they enjoyed (i.e., liked somewhat and liked a great deal) browsing in-store (see Figure 18). The 58% of respondents who enjoyed browsing in-store will be categorised as ‘browsers’ and the remaining 42% of respondents will be categorised as ‘non-browsers’.

The size of the shopping centre played an important role in determining respondents' destinations for browsing speciality products. Figure 19, indicates that the regional shopping centre was the most preferred destination for the majority of survey respondents, while the sub-regional was the least preferred browsing destination. The sub-regional shopping centre, despite having the presence of quality restaurants, was not able to attract customers interested in browsing for speciality products. This supports the findings of Anselmsson (2016) in that the increased footfall to the shopping centre driven by the presence of service-based retailers does not necessarily increase the overall sales of the centre.

Figure 18: Respondents' in-store browsing behaviour (N=287)

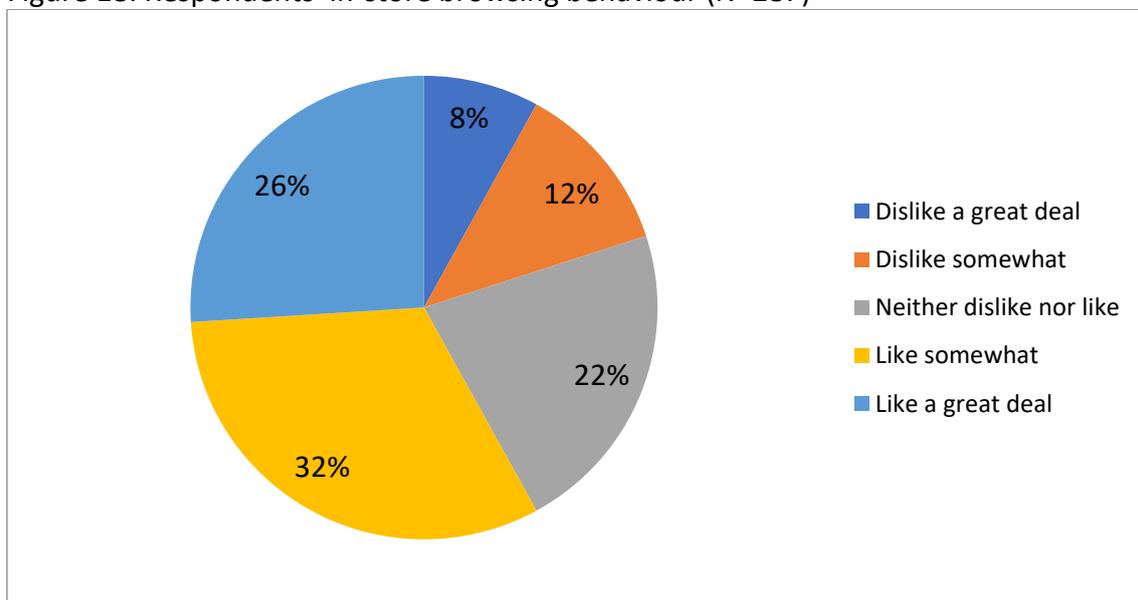
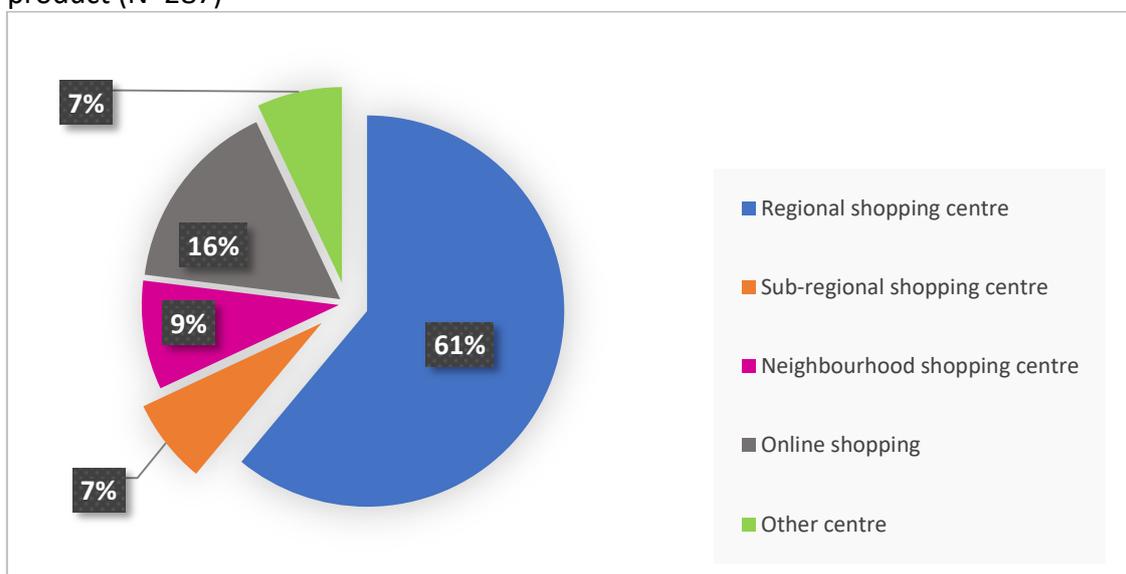


Figure 19: Respondents' preferred shopping destination for browsing speciality product (N=287)

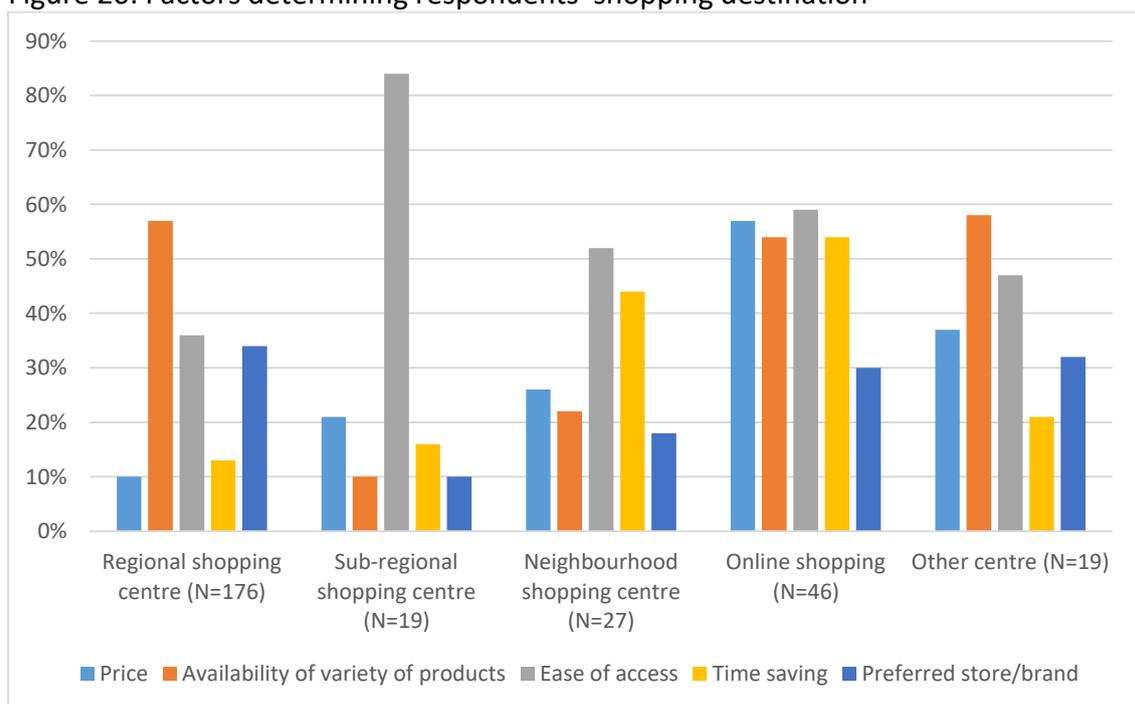


Respondents who indicated in the questionnaire that online shopping was their preferred browsing destination for speciality products, identified price, availability or variety of products, ease of accessibility and time saving as their main reasons (see Figure 20).

Respondents who selected neighbourhood and sub-regional shopping centres for their browsing activity indicated that they preferred the ease of accessibility. The neighbourhood shopping centre, due to its proximity to shoppers' residences, was considered to provide a 'timesaving' attribute and this was an important factor in their selection (see Figure 20).

In contrast, 64% of respondents who preferred browsing at the regional shopping centre did not indicate ease of accessibility as their main reason for selecting the regional shopping centre. Instead, they valued the wider variety of products. These results reinforce Teller and Elms (2010) who found that the perceived difficulty of accessing the shopping centre can be offset by the shopping centre orientation (i.e., fashion) and availability of variety of products. Furthermore, Figure 20 indicates that of those respondents who preferred browsing at regional shopping centres, only 10% considered price as the main determinant for them choosing a regional shopping centre.

Figure 20: Factors determining respondents' shopping destination



Despite the availability of a variety of products at the regional shopping centre, above Figure 20 indicates that only 34% of those survey respondents who preferred browsing at the regional shopping centre would browse due to the presence of their preferred store/brand. This demonstrates that shopping centre patronage is not necessarily linked to the presence of shoppers' preferred brand/store. Nevertheless, survey respondents who usually chose their shopping destination based on the presence of their preferred store/brand had a slightly higher preference for browsing the fashion product category than for the non-fashion product category (see Figure 21).

Figure 21: Factors determining respondents' shopping destination based on respondents preferred product category and browsing behaviour

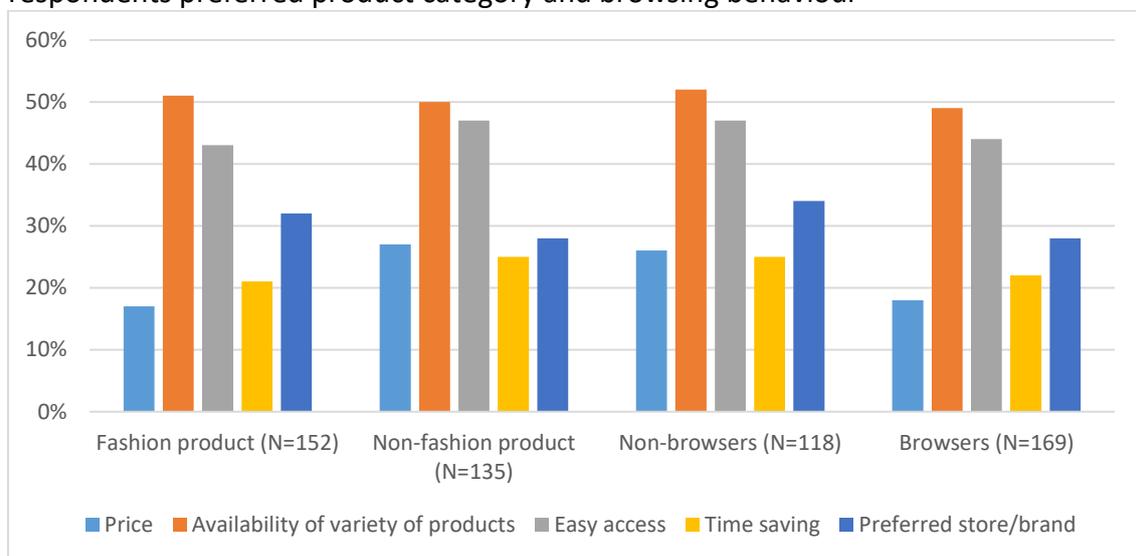


Figure 21 also indicates that the choice of shopping destination for non-browsers based on the presence of their preferred store/brand was slightly higher than for browsers. Ferreira and Coelho (2015) also found those consumers with the intention of spending less time and effort in purchasing a product tend to rely on a particular brand or a store that they are familiar with, as they are certain to find what they want. In other words, non-browsers would generally recall the major brands that are located within the shopping centres, and then determine their shopping destination.

However, there were challenges related to the size of the shopping centre. Most non-browsers had lower levels of perceived visibility (i.e., recall that the store exists) of the independent speciality stores at regional shopping centres. Non-browsers perceived the level of visibility of the independent stores was higher in a neighbourhood centre (as evidenced in Figure 22). Meanwhile, many browsers indicated high levels of

perceived visibility of the independent speciality stores at both regional and neighbourhood shopping centres (see Figure 22). Therefore, the size of the shopping centre and browsing behaviour can influence shoppers' ability to locate a particular independent speciality store.

In the current study, the aspect of choice overload was based on the presence of numerous speciality stores in a shopping centre, especially within the regional shopping centres. The results suggest that non-browsers may experience choice overload more frequently in larger-sized shopping centres (i.e., regional shopping centres) than browsers.

Figure 22: Perceived level of visibility of the independent speciality stores in categorised shopping centres based on respondents' browsing behaviour

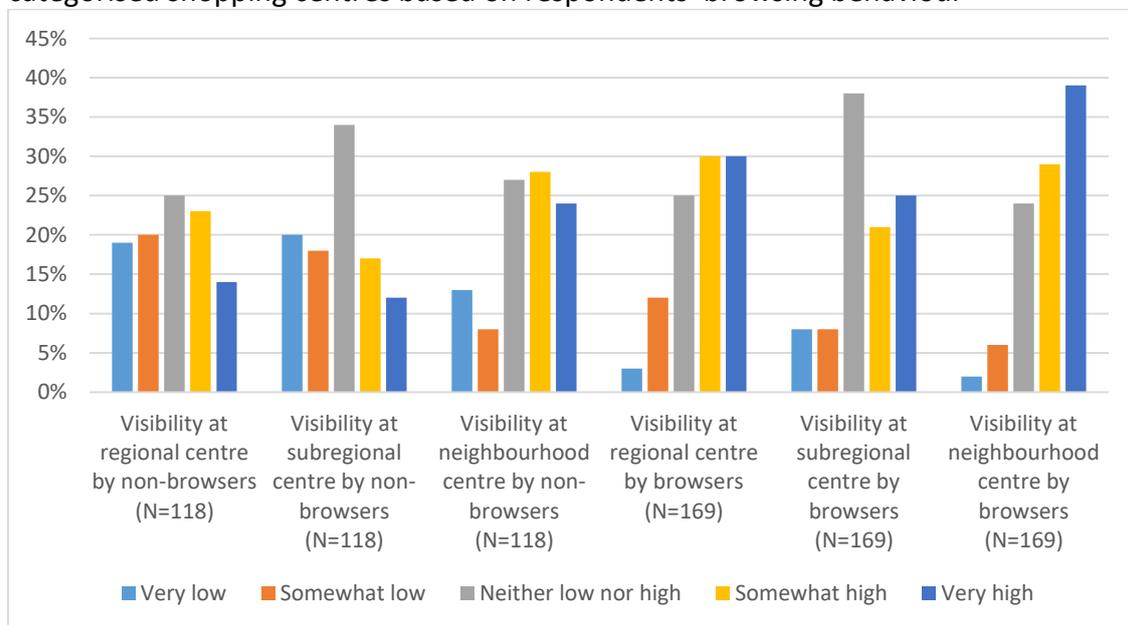


Figure 22 also shows that both browsers and non-browsers were unsure of their perceived level of visibility (i.e., recall that the store exists) of the independent speciality stores at the sub-regional shopping centre. This could be due to most respondents' non-preference for browsing for speciality products in sub-regional shopping centres. Other factors influencing independent speciality stores' visibility within a shopping centre are price consciousness and store patronage. For example, of those survey respondents who indicated price as one of the main elements in determining their shopping destination, 52% indicated high visibility of their preferred speciality stores at the regional shopping centre (see Figure 23).

Figure 23 indicates that store patronage does not enhance the visibility of independent speciality stores at regional shopping centres. Most of those survey respondents who determined their shopping destination based on the presence of their preferred store/brand indicated low visibility of independent speciality stores at the regional shopping centre. One possible reason for this low visibility could be the browsing behaviour of this group. According to Figure 24, 46% of respondents who determined their shopping destination based on the presence of their preferred store/brand were non-browsers. Furthermore, only 29% of these non-browsers indicated that the perceived visibility of independent speciality stores at the regional shopping centre was high. Hence, shoppers' non-browsing behaviour is likely the main reason affecting the perceived visibility of independent speciality stores at regional shopping centres.

Figure 23: Perceived level of visibility of the independent speciality stores in regional shopping centre by price-conscious respondents and respondents with store patronage

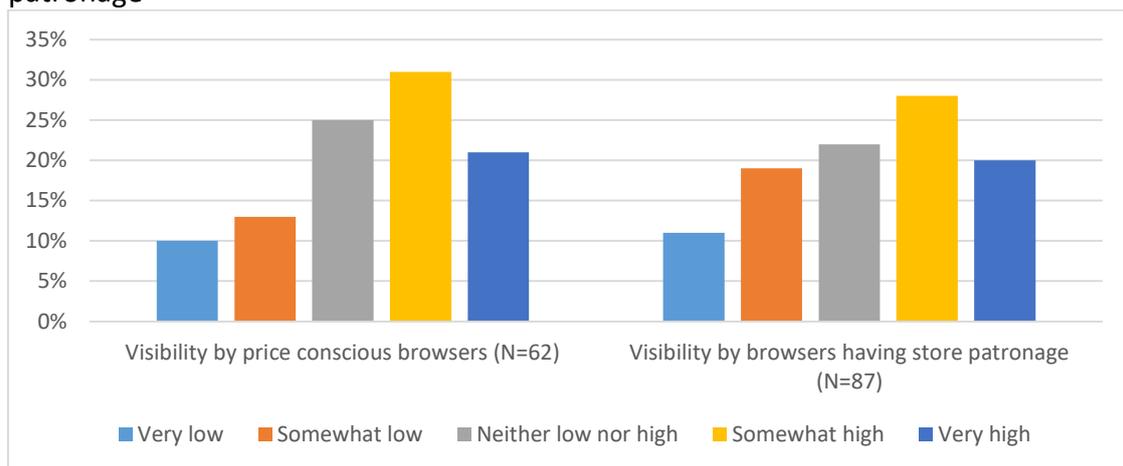
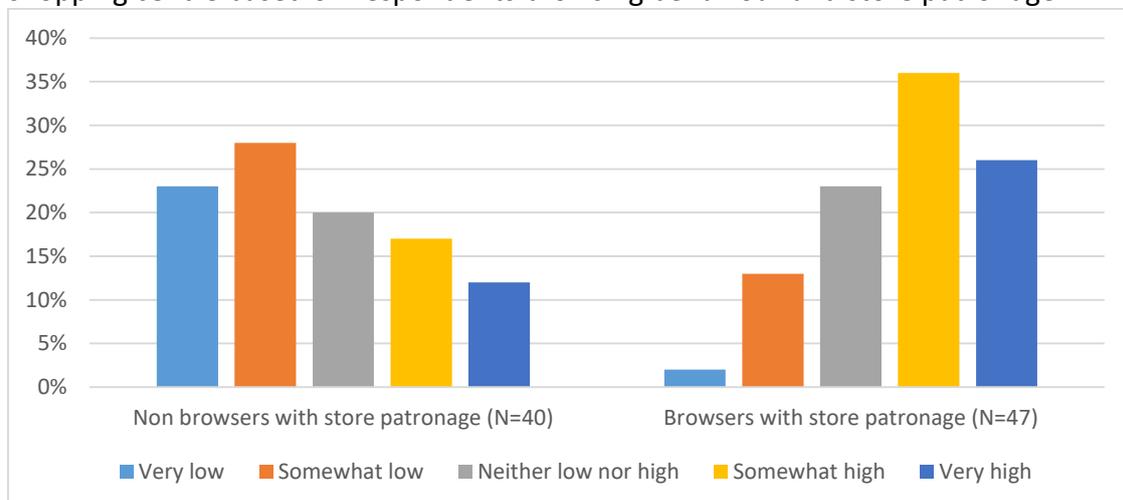
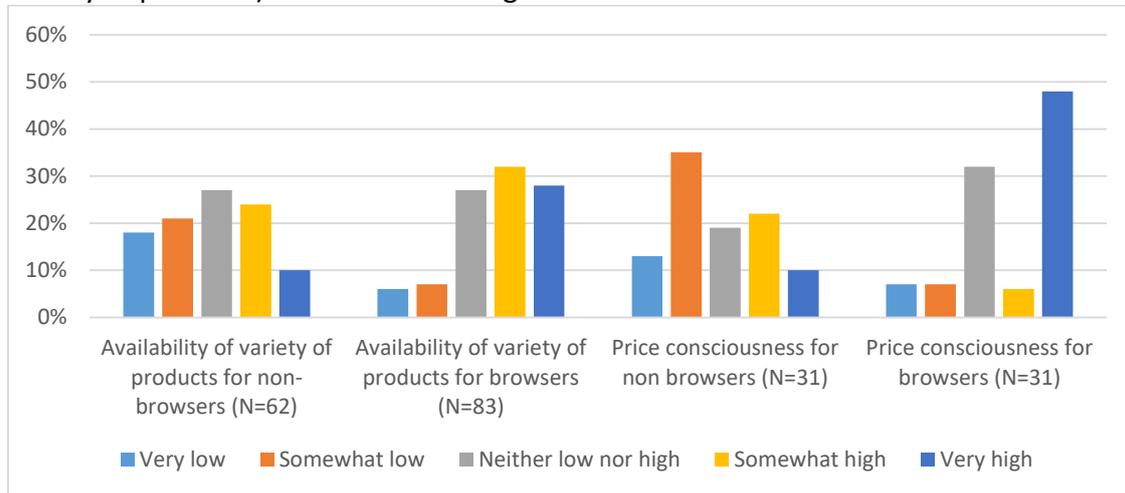


Figure 24: Perceived level of visibility of the independent speciality stores in regional shopping centre based on respondents browsing behaviour and store patronage



The results indicate that the perceived visibility of the independent speciality stores for those respondents who browsed due to 'price' or 'availability of variety of products' was affected by their non-browsing behaviour (as evidenced in Figure 25).

Figure 25: Perceived level of visibility of the independent speciality stores in regional shopping centre based on respondents' browsing motive (i.e., price and availability of variety of products) and their browsing behaviour



The results shown in Figures 24 and 25 indicate that the shopping centres may draw their customers based on the presence of main anchor tenants such as Kmart, Myer and Target. However, the visibility (i.e., shoppers recall that the store exists) of the independent speciality stores at regional shopping centres will likely remain low if shoppers have non-browsing behaviour.

In order to reduce choice overload, Scheibehenne et al. (2010) suggested that consumers visiting a shopping centre with prior preferences could reduce the possibility of choice overload. Table 19 presents the ordinal regression to predict the odds for the survey respondents in finding an independent speciality store within the regional shopping centre when they have a pre-determined purchase objective. According to Bland and Altman (2000) the result of the ordinal regression is considered to have no association between the different levels of the response variable when the odds ratio = 1. In this study, the Pearson chi square test indicates that the data in this study is a good fit, as the p-value > 0.05 and the test of parallel lines with p-value > 0.05 show the assumption of proportional odds is satisfied. The data also satisfies the model fitting information with chi square being significant at 0.05. Thus, the data satisfies all the assumptions to carry out the cumulative odds ordinal regression using a proportional odds model with SPSS software (Liu, 2009).

In relation to the proportional odds model, the odds for each response level ‘never’, ‘rarely’, ‘sometimes’, ‘most of the time’ indicated by the survey respondents are compared against those respondents who indicated they had pre-determined purchase objectives ‘all the time’ (Liu, 2009). The odds ratio indicates the probability of an outcome under a given circumstance (Szumilas, 2010).

Results from the ordinal regression did not clearly show that the frequency of a pre-determined purchase objective could enhance a respondent’s visibility of their preferred independent speciality stores at the regional shopping centre. The result showed that the visibility was only higher for those respondents who ‘always’ preferred to visit a shopping centre with a pre-determined purchase objective in comparison to those who indicated ‘sometimes’. The odds ratio for these two categories was identified to be statistically significant with a 90% confidence level and p value < 0.05. The sample size was estimated at 90% confidence level (see Section 3.5.2 page 84). Therefore, the confidence level for the analysis of ordinal regression was retained at 90%.

Table 19: cumulative odds ratio for respondents to recall the speciality stores in a regional shopping centre based on their frequency of taking a shopping list to the centre

Dependent variable		Perceived level of visibility of independent speciality stores in regional shopping centre
Independent variable		
	Model fitting information (chi-square)	9.161**
	Goodness of fit (Pearson Chi-square)	10.273
	Sig. (goodness of fit)	0.592
	Pseudo R-Square (Nagelkerke)	0.033
	Test of Parallel lines (chi-	10.112

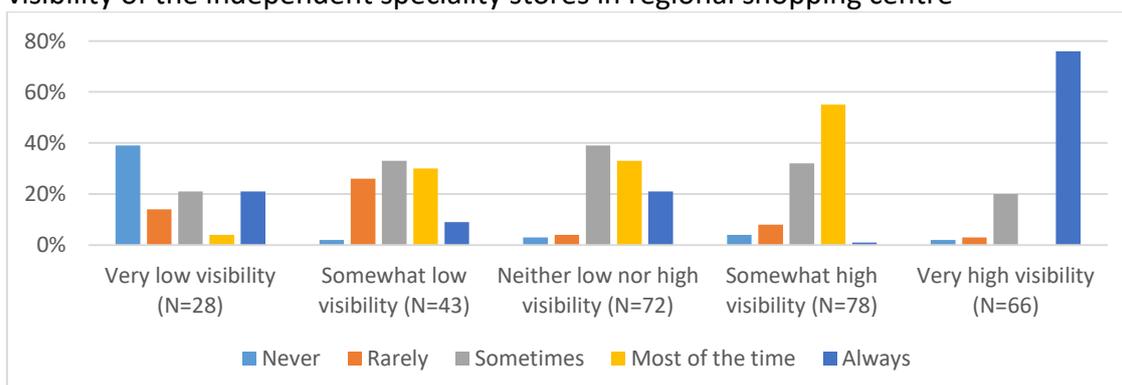
	square)			
	Sig. (test of parallel lines)	0.606		
Variables	Parameter	Expo(b)	Std. error	Wald
Respondents' frequency of shopping centre visits with pre-determined purchase objective	Never (N=15)	0.484	0.524	1.913
	Rarely (N=38)	0.99	0.385	0.00
	Sometimes (N=79)	0.446**	0.324	6.213
	Most of the time (N=104)	0.604	0.307	2.697
	Always (N=51)	--	--	--

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

Table 19 supports the CFA result in Section 5.3 and indicates that online product comparison prior to purchasing in-store may not assist respondents in reducing the possibility of choice overload at the regional shopping centre during time constrained shopping activity. Results suggest that consumers' non-browsing behaviour was the main reason for experiencing choice overload, as they were likely to be unable to recall the speciality stores in terms of product quality and service that ultimately affected consumers' choice of speciality stores during time constrained.

Nevertheless, Figure 26 indicates that the frequency of impulse purchases by respondents increased with a decrease in the perceived level of difficulty in accessing a particular store at the regional shopping centre.

Figure 26: Frequency of impulse purchases based on respondents' perceived level of visibility of the independent speciality stores in regional shopping centre



### 5.4.1 Consumers' frequency of impulse when shopping in-store

Respondents' impulse purchases were related to their income level (as evidenced in Figure 27). The results indicate that the frequency of impulse purchase declines with an increase in the income level of the respondents. In the current study, those with an income level of AUD\$21,401 to \$44,940 had the highest frequency of impulse purchase in comparison to other income groups. In contrast, respondents with an income above AUD\$75,000 p.a. had the lowest frequency (i.e., 'always' and 'most of the time') of impulse purchase. This may suggest that the environments of centres within the sub-regional shopping centre trade area are not attractive to higher income groups (for evidence see Figure 28). This could be the result of the shopping centre aiming at too broad a target market or having insufficient opportunity for impulse purchases of those residing within its catchment area. Michon, Yu, Smith, and Chebat (2008) suggest that the use of this approach by suburban shopping centres is the main cause of their failure to satisfy and attract higher-class fashion oriented shoppers.

Figure 27: Frequency of impulse purchase for respondents based on their income level

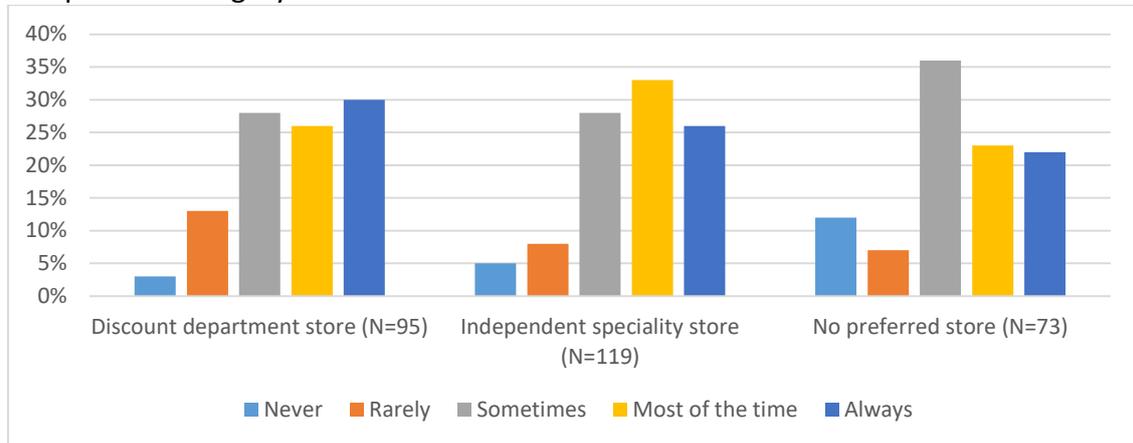


Figure 28: Store patronage based on respondents' income level



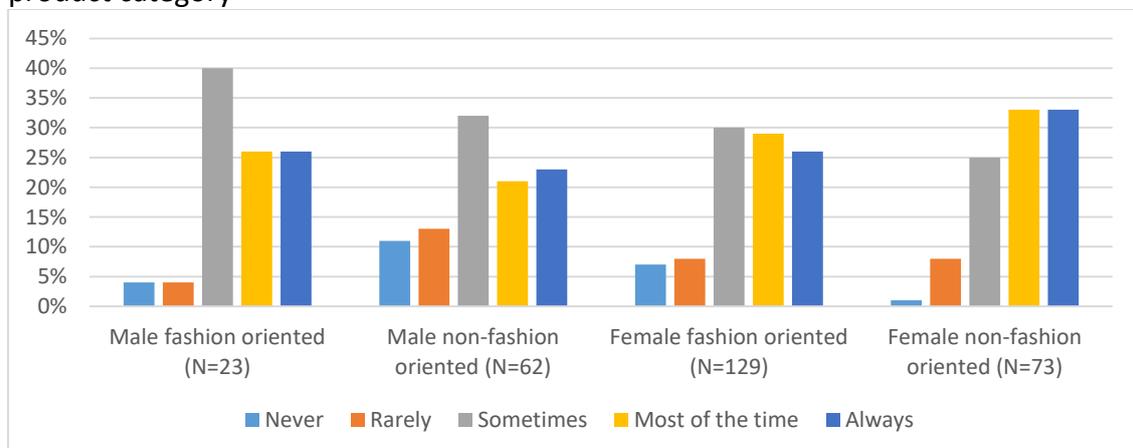
The current study found that the frequency of impulse purchase was greater for those respondents who preferred a particular store type (i.e., either discount department store<sup>17</sup> or independent speciality store) when purchasing the speciality product than those respondents with no preference for a store type (see Figure 29).

Figure 29: Frequency of impulse purchase based on respondents' preferred store type and product category



However, there was no difference in the frequency of impulse purchases between those male and female survey respondents who preferred browsing in the fashion product category (see Figure 30). These findings support Workman and cho's (2012) research that there was no difference in the frequency of male and female impulse purchase for fashion products. As for non-fashion products, the result of the current findings aligns with those of Sigal and Ram (2012) who found that female shoppers made more impulse purchases than males.

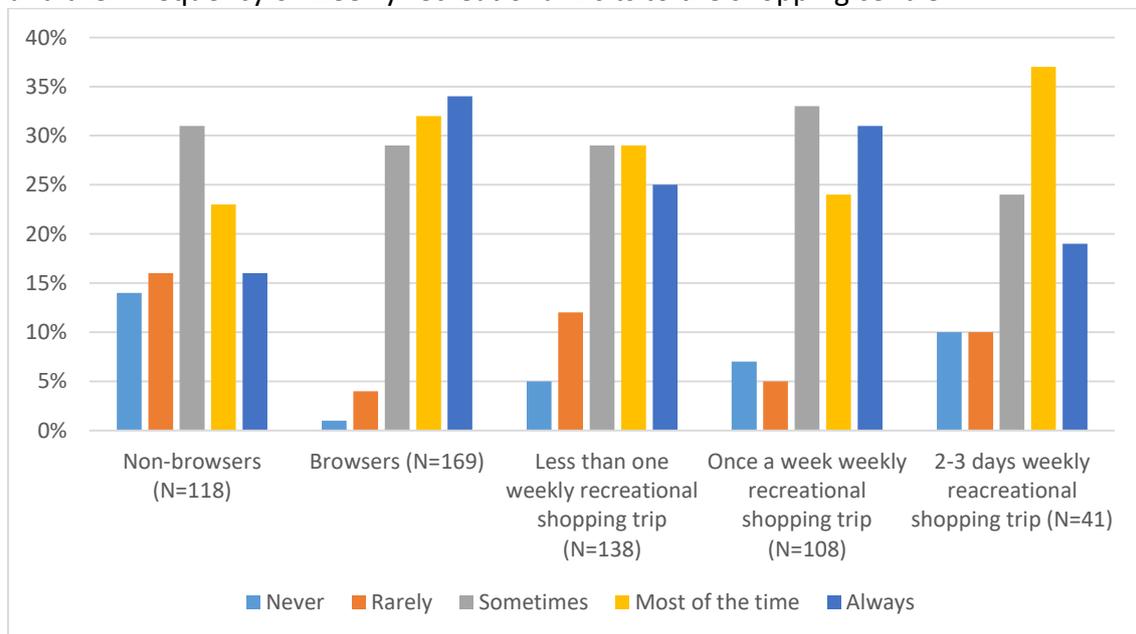
Figure 30: Frequency of male and female respondents impulse purchase based on the product category



<sup>17</sup> A *discount department store* is a large department store that occupies store space between 930-10,000 m<sup>2</sup> and has discounts on products (International Council of Shopping Centres, n.d.; URBIS, 2015). This term is widely used in Australia for stores such as Kmart, Target or Big W.

Figure 31 below indicates that in-store browsing behaviour is economically important to the shopping centres. For example, 66% of browsers had a high frequency of impulse purchase (i.e., 'most of the time' and 'always'). This result reinforces findings by Xia (2010) who reported that consumers' browsing behaviour was an important element influencing the survival of shopping centres. Previous studies by Bloch and Richins (1983) and Xia (2010) also indicated that in-store browsing was an important facet of the leisurely shopping experience. In this regard, Figure 31 also presents the tendency of respondents to make an impulse purchase based on their frequency of recreational shopping visits in a week.

Figure 31: Frequency of impulse purchase based on respondents' browsing behaviour and their frequency of weekly recreational visits to the shopping centre



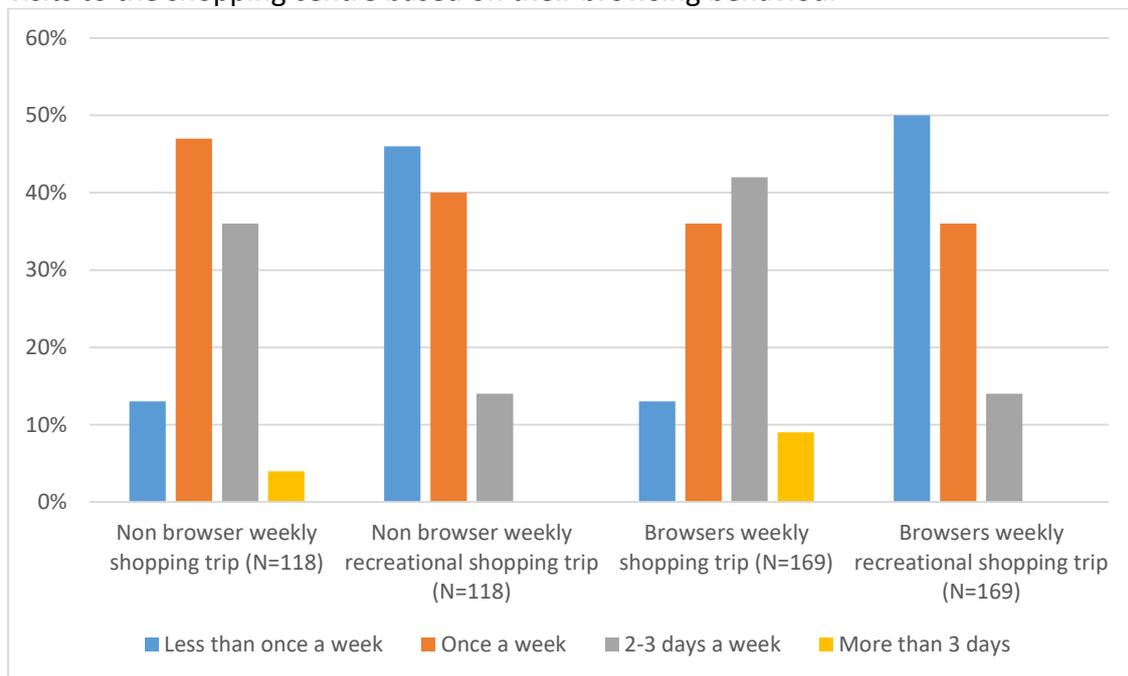
There was no difference in the frequency of impulse purchase for respondents who visited the shopping centre for recreational purposes on more than two days a week, in comparison to those who visited less than once a week. This suggests that the high frequency of weekly recreational shopping visits may not enhance the rate of impulse purchases. For example, 50% of those respondents who enjoyed in-store browsing indicated they visited the shopping centre for recreational purposes less than once a week (see Figure 32).

Yet Figure 32 also indicates that 87% of those respondents who enjoyed in-store browsing visited the shopping centre at least once a week (i.e., overall weekly shopping visit). This result aligns with the Confirmatory Factor Analysis (CFA) result

that indicated that the survey respondents visiting the shopping centre during weekday extended trading hours are likely to exhibit non-browsing behaviour. These results suggest that the majority of respondents in the current study who enjoyed in-store browsing are usually time poor.

The frequency of overall weekly shopping visits for 40% of all the survey respondents was 2-3 days a week (see Figure 38). This parallels the findings of Bailey (2013), who noted that 41% of Australian shoppers visit a shopping centre 2 to 3 times a week.

Figure 32: Frequency of respondents' weekly goal oriented and recreational shopping visits to the shopping centre based on their browsing behaviour



#### 5.4.2 Influence of product categories and gender on in-store browsing time

Respondents' browsing time spent in the shopping centre during goal-oriented (i.e., with the intention to purchase) and recreational shopping was recorded on a ratio scale. For example, in a ratio scale the respondents can provide the time spent in-store browsing for speciality products as 'zero' (Creswell and Creswell, 2018). The in-store browsing time was identified to have a non-normal distribution. The normality test was performed using two of the most common statistical analyses: the Shapiro Wilks test and the Kolmogorov-Smirnov test (Hair et al., 2014). Hence, a non-parametric statistical analysis was suggested by Grech and Calleja (2018) to examine non-normal data.

A Kruskal-Wallis test<sup>18</sup> was applied to examine any significant differences in respondents' in-store browsing time. The test was performed based on respondents' preferred product category (fashion or non-fashion product category) for browsing in-store. During goal-oriented shopping visits, the result showed that in-store browsing time was greater for the fashion product category (30 minutes) than the non-fashion product category (20 minutes) (see Appendix 11 for the calculation of measures of central tendency). The Kruskal-Wallis test score  $\chi^2(1) = 15.207.00$  was statistically significant at 0.000 (i.e., p value < 0.05).

In terms of recreational shopping visits, respondents who preferred browsing the fashion product category (30 minutes) spent more time in the centre than those respondents who browsed the non-fashion product category (20 minutes). This result was statistically significant at 0.000 with a Kruskal-Wallis test score of  $\chi^2(1) = 12.135$ .

Thus, the results indicate that fashion orientation is an important element in influencing shoppers to spend more time in shopping centres. Michon, Chebat, Yu, and Lemarié (2015) had similar findings, noting that fashion orientation plays a key role in shaping the perceptions of shoppers, especially female shoppers, about product quality and recreational experiences offered by shopping centres. These results also imply that a fashion orientation is an essential factor in the success of the Australian retail environment, especially as the majority of the Australian people spending time in shopping centres are female (Bailey, 2013).

Therefore, a Kruskal-Wallis test indicated that the in-store browsing time spent by female respondents in shopping centres during goal-oriented (i.e., with the intention to purchase) shopping visits was greater (30 minutes) than for male respondents (20minutes). The Kruskal-Wallis test score  $\chi^2(1) = 5.536$  was statistically significant at 0.019 (i.e., p value < 0.05).

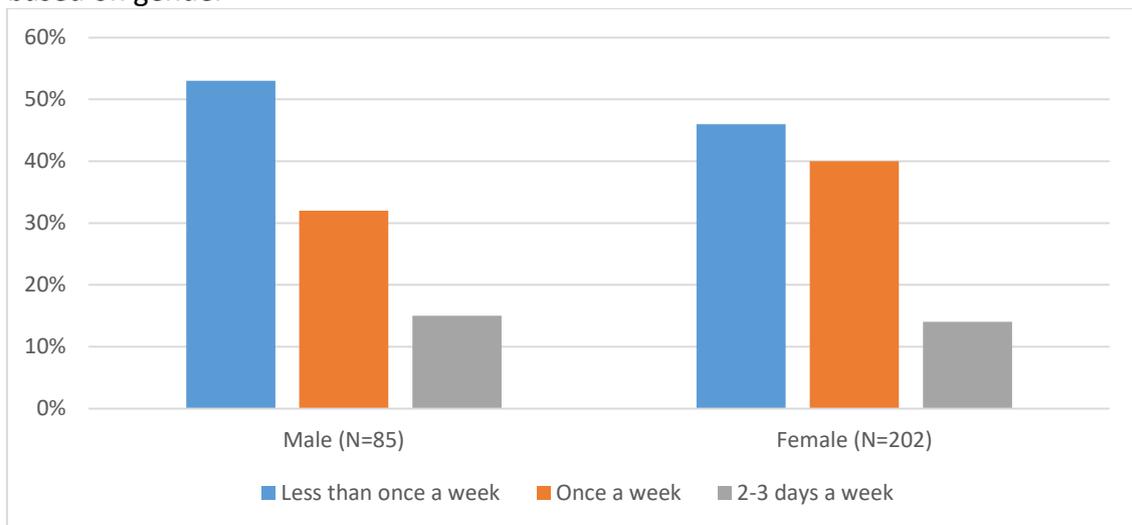
For recreational shopping visits the result showed that female respondents (30minutes) spent more time browsing in-store than male respondents (15 minutes). The difference between male and female respondents for in store browsing time was statistically significant at 0.000 with Kruskal-Wallis test score of  $\chi^2(1) = 12.135$ .

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<sup>18</sup> "Kruskal-Wallis test is a non-parametric test for comparison between more than two medians, using the relative rankings within the different samples" (Nicholson, 2014, p. 176).

These results parallel the findings of Xia (2010) and Jarboe and McDaniel (1987) whose studies indicated that female shoppers spend more time browsing in-store than male shoppers. The results also indicate that the majority of male respondents spent less time browsing in-store (15 minutes) when visiting a shopping centre for recreational purposes in comparison to their goal-oriented shopping visits (20 minutes). Yet 47% of the male respondents indicated that they visited the shopping centre at least once a week for recreational purposes (see Figure 33).

Figure 33: Frequency of weekly recreational shopping visits to the shopping centre based on gender



According to Reimers and Chao (2014) time convenience is an important factor for consumers to derive satisfaction from their leisure shopping activity. Therefore, ordinal regression was computed to identify the odd ratio for survey respondents to visit the regional shopping centre during the weekday late evening (WLE) trading hours. The ordinal regression was based on respondents' frequency of weekly recreational shopping visits to the shopping centre, and the result is presented in Table 23.

Table 20 indicates that the probability of visiting the regional shopping centre during the WLE trading hours was greater for those respondents who had the highest frequency of shopping centre visits for leisurely experiences. The odds ratio for these three categories was identified as being statistically significant with 90% confidence level and p value < 0.05.

Table 20: Cumulative odds ratio for respondents visiting the regional shopping centre during WLE trading hours, based on respondents frequency of weekly recreational visits to the shopping centre

Independent variable		Dependent variable		
		Frequency of visits to regional shopping centre on Thursday during the late evening trading hours		
	Model fitting information (chi-square)	8.404**		
	Goodness of fit (Pearson Chi-square)	6.405		
	Sig. (goodness of fit)	0.379		
	Pseudo R-Square (Nagelkerke)	0.030		
	Test of parallel lines (chi-square)	6.558		
	Sig. (test of parallel lines)	0.364		
Variables	Parameter	Expo(b)	Std. error	Wald
Weekly recreational shopping visits	Less than once a week (N=138)	0.389***	0.322	8.591
	Once a week (N=108)	0.514**	0.330	4.084
	2-3 days a week (N=41)	--	--	--

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

The results in this section (5.4) showed that in-store consumers' browsing behaviour is still pertinent in influencing consumers in having high visibility (i.e., recalling that the store exists) of independent speciality stores. However, the time spent by a consumer in browsing in-store was not relevant in influencing the visibility of the independent

speciality stores. Thus, the consequences of low visibility of shoppers' preferred stores at regional shopping centres might decrease the frequency of impulse purchases. The results in this section also align with the CFA result in Section 5.3 which indicates that respondents are usually not engaged in browsing (i.e., leisure) activities during WLE trading hours, because 50% of the browsers reported they visited the shopping centre less than once a week for recreational purposes. This section (5.4) identified that consumers were more likely to visit the shopping centre more often with a goal oriented (i.e., with the intention to purchase) shopping objective than for recreational purposes. These findings concur with Reimers and Clulow (2009) research which suggested that Australian shoppers were regularly pressed for time and sought time convenience when shopping. The next section 5.5 examines the importance of distance to shopping centre when a consumer intends to purchase a speciality product in-store.

### **5.5 Distance to shopping centre**

Section 5.5 examines respondents' perceived level of importance of distance to a shopping centre when shopping for speciality products (i.e., most respondents preferred in-store browsing for speciality product). This section also examines the influence exerted by the type of shopping centre located closest to the respondent's residence on the frequency of weekly shopping visits.

Figures 34 and 35 indicate the mode of transportation to the work place and the shopping centre are similar for shoppers residing within the sub-regional shopping centre trading area. However, respondents chose the personal car as their preferred mode of transport when travelling to the shopping centre (see Figure 35)

Figure 34: Shoppers' preferred mode of transportation when making a shopping trip to categorised shopping centres

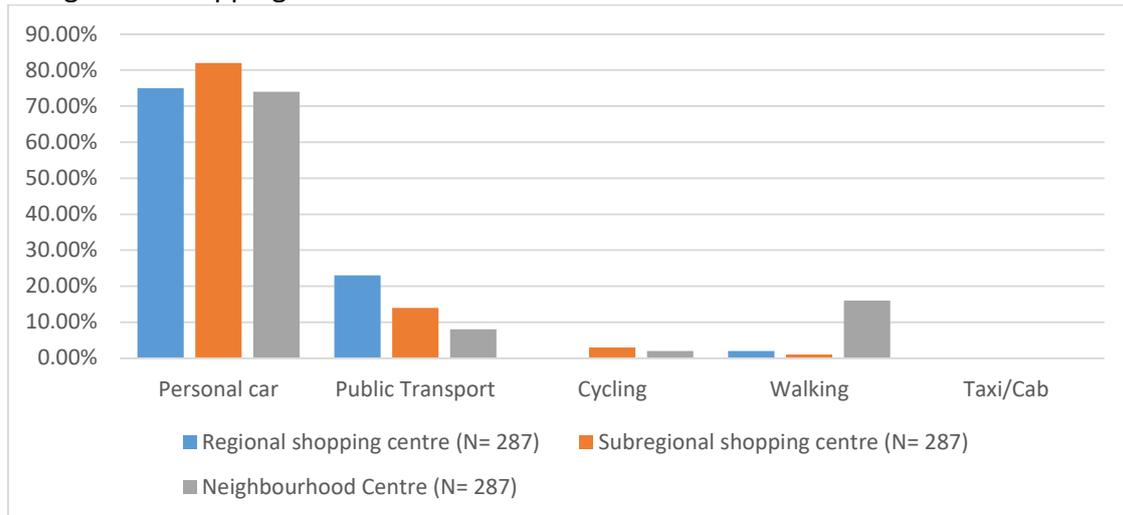
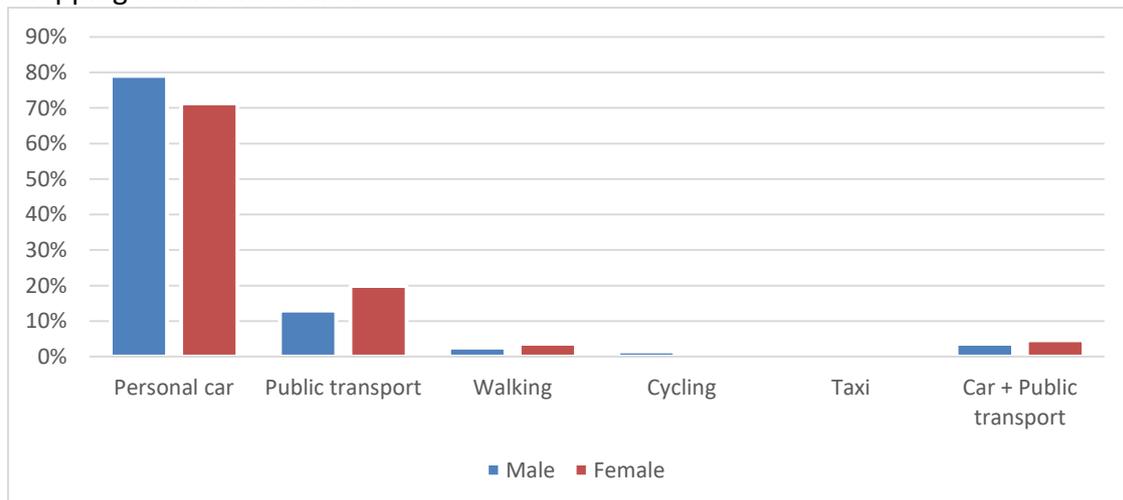


Figure 35: Preferred mode of transportation to work place for residents of sub-regional shopping centre trade area

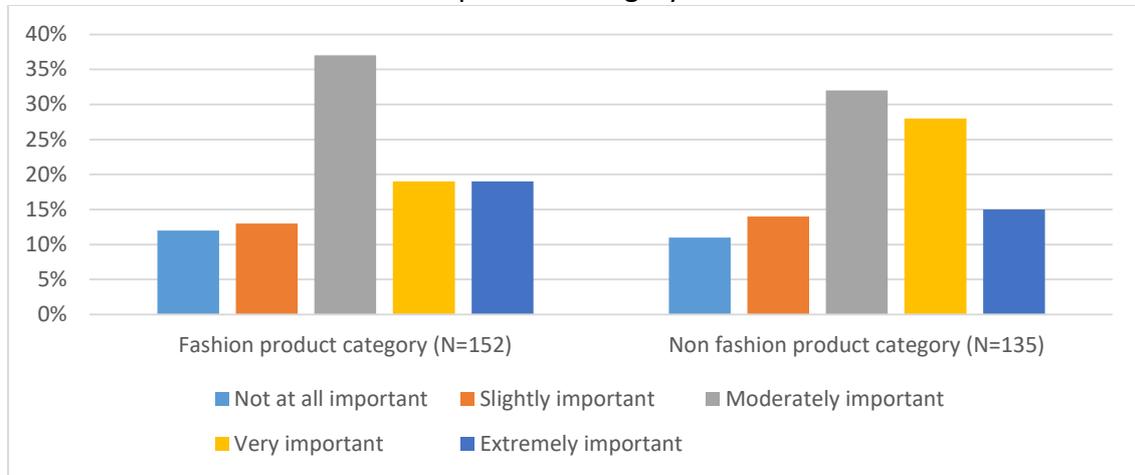


Source: (Australian Bureau of Statistics, 2016b)

Proximity of the shopping centre is more relevant when respondents are shopping for non-fashion products (see Figure 36). These findings align with Ganesh, Reynolds, and Lockett (2007), who found that fashion-oriented shoppers tended to consider proximity less important when shopping for fashion products. This may be because non-fashion products such as electronics and appliances are usually based on one's personal needs. In contrast, a fashion purchase is influenced by social benefit. Burns (2010) explained the social benefit derived from fashion relates to the individual's desire to imitate or associate with a certain class of people that are unique and widely accepted. Hence, fashion-oriented consumers tend to have an affective shopping style

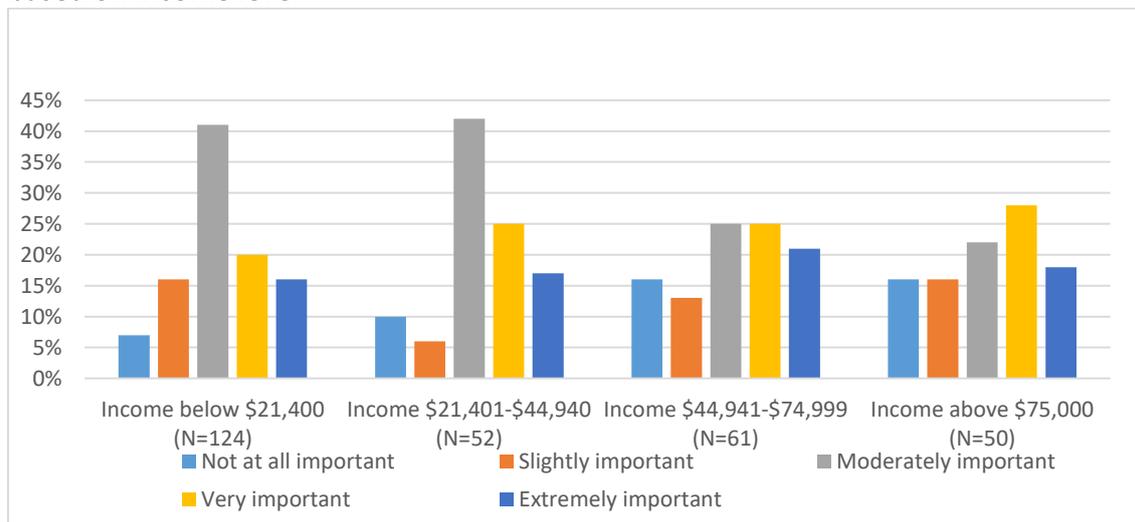
that is driven by emotion and they are more likely to consider distance less important when shopping for their preferred brand.

Figure 36: Respondents' perceived level of importance of distance to shopping centre based on fashion and non-fashion product category



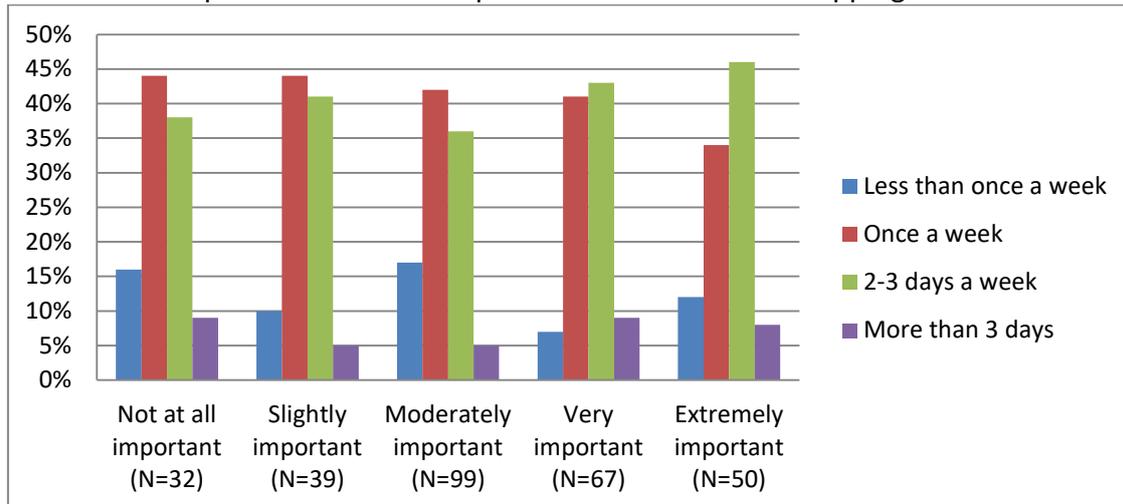
As for the income factor, Figure 37 suggests the level of 'importance' of distance to the shopping centre increased with the rise in respondent's income level. These results slightly diverge from Fitch's (2004) findings that proximity to the shopping centre was more important to lower income shoppers than to shoppers with a higher income.

Figure 37: Respondents' perceived level of importance of distance to shopping centre based on income level



However, an increase in the frequency of respondents' weekly shopping visits influences the importance of proximity to the shopping centre (as depicted in Figure 38). This result aligns with the findings of Anselmsson (2006), which showed that proximity to the shopping destination can influence the frequency of consumers' shopping visits.

Figure 38: Respondents' frequency of weekly shopping visits to the shopping centre based on their perceived level of importance of distance to shopping centre



Despite shoppers' time constraints for shopping activities, previous research by Geiger (2007) found the frequency of shopping visits during the late evening trading hours was greater for younger cohorts in comparison to older shoppers. Table 21 presents the ordinal regression to predict the odds for the survey respondents in relation to their preference for shopping during extended trading hours, according to different age groups.

The results from the ordinal regression revealed that the preference for extended trading hours was greater for young adult respondents (odds ratio=1.99) in comparison to the middle aged respondents. The odds ratio for these two categories was statistically significant with 90% confidence level and p value < 0.01. Thus, the result of this ordinal logistic regression supports the previous findings by Geiger (2007).

Table 21: Cumulative odds ratio for respondents who prefer shopping on days having extended trading hours, based on respondents' age group

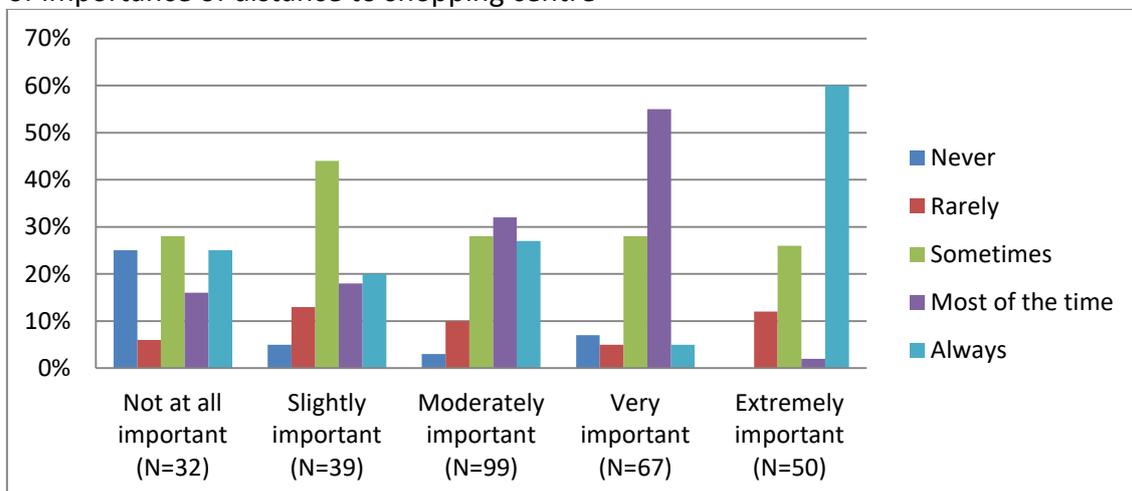
Independent variable		Dependent variable	Perceived level of preference for shopping on days offering extended trading hours
		Model fitting information (chi-square)	7.327***

	Goodness of fit (Pearson Chi-square)	4.915		
	Sig. (goodness of fit)	0.178		
	Pseudo R-Square (Nagelkerke)	0.026		
	Test of Parallel lines (chi-square)	4.827		
	Sig. (test of parallel lines)	0.185		
Variables	Parameter	Expo(b)	Std. error	Wald
Shoppers' age group	Young adult (N=222)	1.99***	0.252	7.393
	Middle aged group (N=65)	--	--	--

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

In terms of impulse purchases, Figure 39 suggests that those respondents who placed a high emphasis on proximity to the shopping centre were more likely to make frequent impulse purchases. However, the frequency of impulse purchase declined as survey respondents' perceived level of importance of distance to shopping centre lessened.

Figure 39: Respondents' frequency of impulse purchases based on their perceived level of importance of distance to shopping centre



In terms of employment status, Figure 40 indicates that respondents in full time employment were less likely to visit the shopping centre for recreational purposes than respondents who were students, unemployed and or employed part-time. However, Figure 40 indicates that a majority of the respondents, irrespective of their employment status, visited the shopping centre at least once a week (i.e., overall). Thus, the results align with the findings of Reimers and Clulow (2009) who found one-stop shopping was sought by most Australian shoppers due to increased workloads and shopping time constraints. The potential for one stop shopping<sup>19</sup> may be one reason why a majority of respondents in the current study selected to shop at the regional shopping centre during weekday extended trading hours (i.e., late evening trading hours). WLE provides the opportunity to spend time for both goal oriented and leisure shopping activity. Nevertheless, the frequency of overall weekly shopping visits was highest for respondents who were employed part-time (see Figure 41).

Figure 40: Frequency of weekly recreational shopping visits to the shopping centre based on respondents' employment status

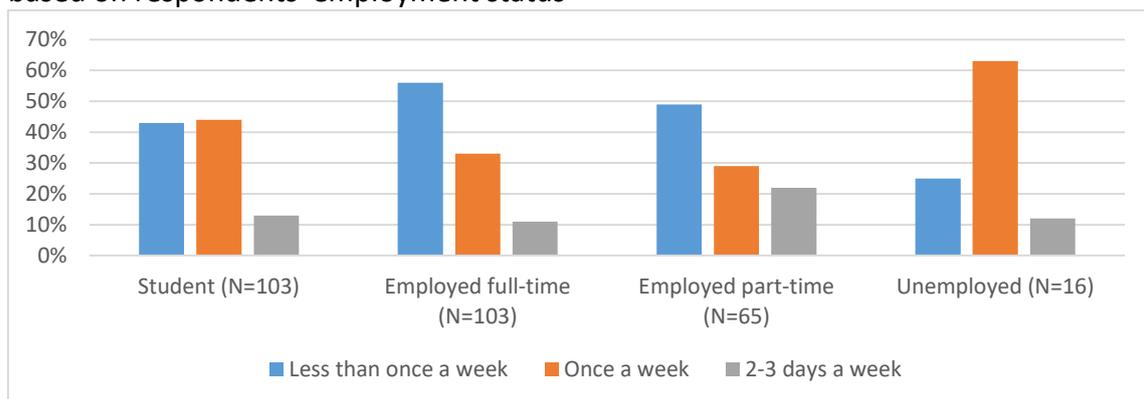
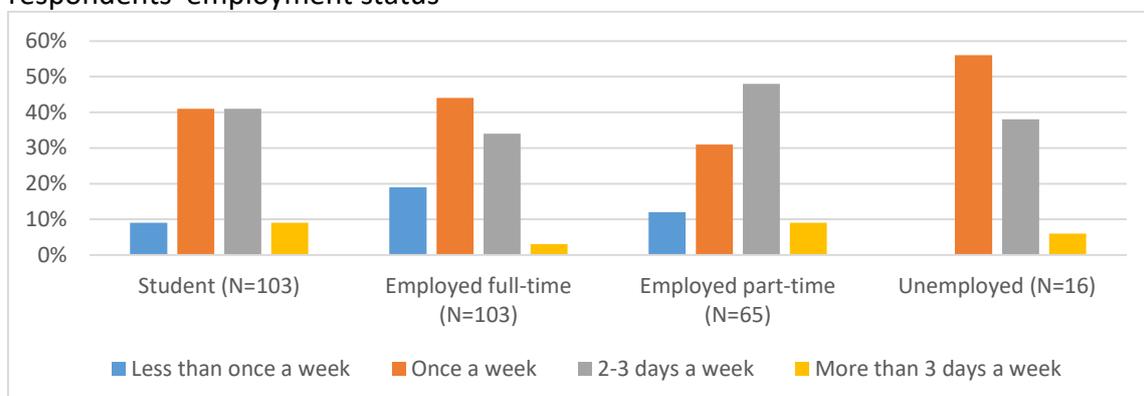


Figure 41: Frequency of weekly shopping visits to the shopping centre based on respondents' employment status



<sup>19</sup> According to Kaufman (1996) one stop shopping means facilitating shoppers with all available shopping options under one roof that can also cater for any uncertain needs of the shopper.

### 5.5.1 Influence of shopping centre size on frequency of weekly shopping visit

The current study also found that the frequency of shopping centre visits was influenced by the size of the shopping centre located in close proximity to the respondent's residence. For example, respondents residing near sub-regional and regional shopping centres exhibited a lower frequency of overall weekly shopping centre visits in comparison to respondents residing near neighbourhood shopping centres. Figure 42 indicates that 56% of the respondents residing near the neighbourhood shopping centre visited the shopping centre at least 2 to 3 days a week in comparison to 46% of respondents residing near the sub-regional, and 40% residing near the regional shopping centre. This result parallels the findings of Baker and Wood (2010), which showed that the frequency of shopping visits was greater at the neighbourhood shopping centre than the regional shopping centre.

Figure 43 also indicates that the frequency of recreational shopping visits to a shopping centre is at least once a week for a majority of the respondents, irrespective of the type of shopping centre located in close proximity. One possible reason for lower frequency of overall weekly shopping centre visits for respondents residing near the regional and sub-regional shopping centres is that these centres can provide one-stop shopping (both goal oriented and leisure shopping activity), which a neighbourhood shopping centre lacks due to the limited variety of products. The orientation of the neighbourhood shopping centres towards groceries and fresh produce may be another factor influencing frequency of shopping visits.

Figure 42: Frequency of weekly shopping based on the type of shopping centre located closest to respondents' residence

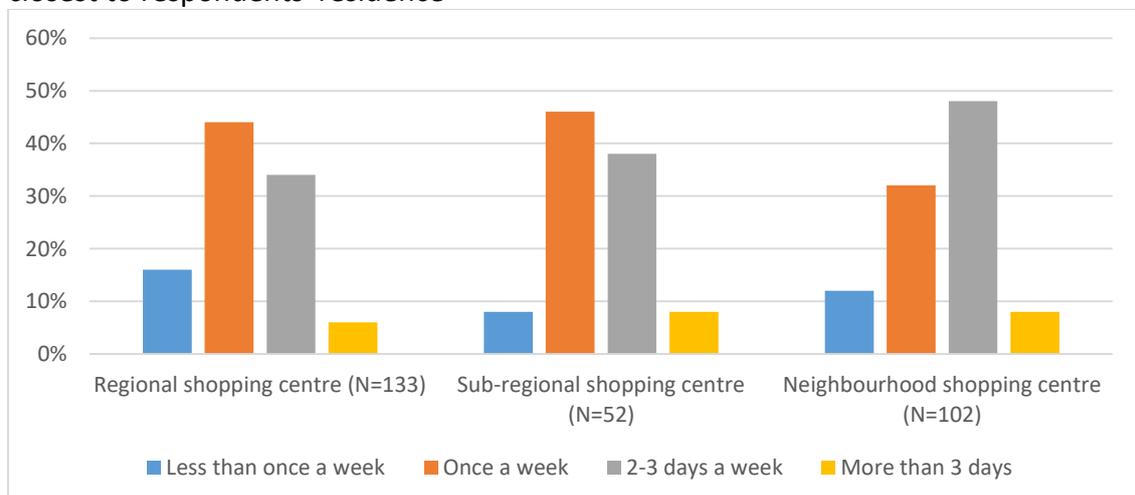
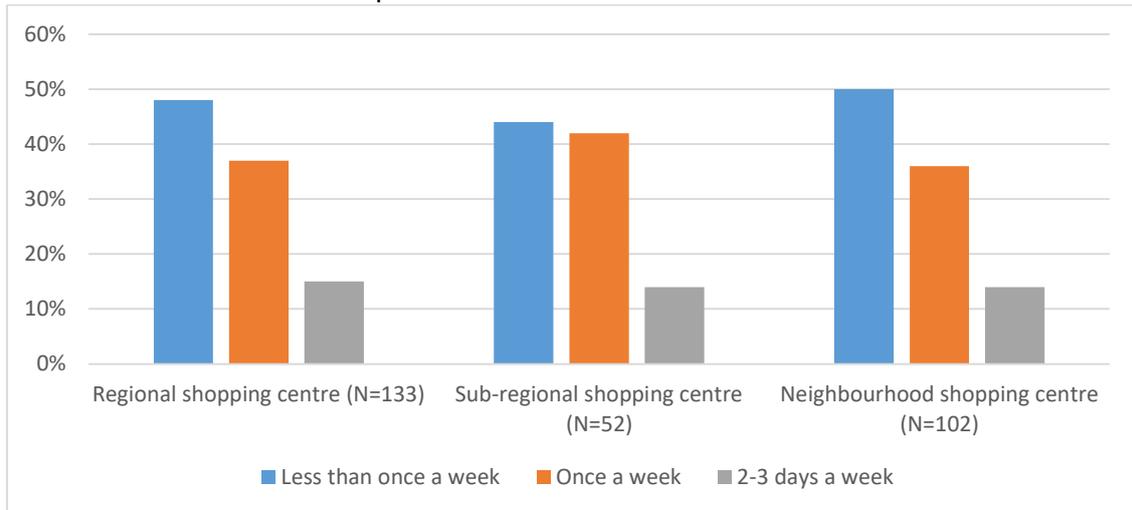
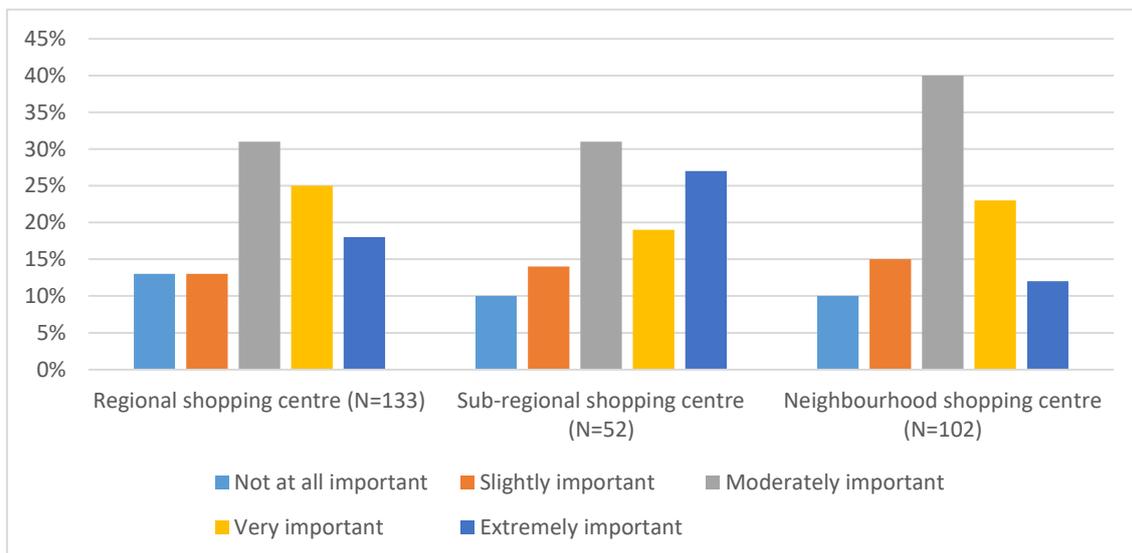


Figure 43: Frequency of weekly recreational shopping based on the type of shopping centre located closest to respondents' residences



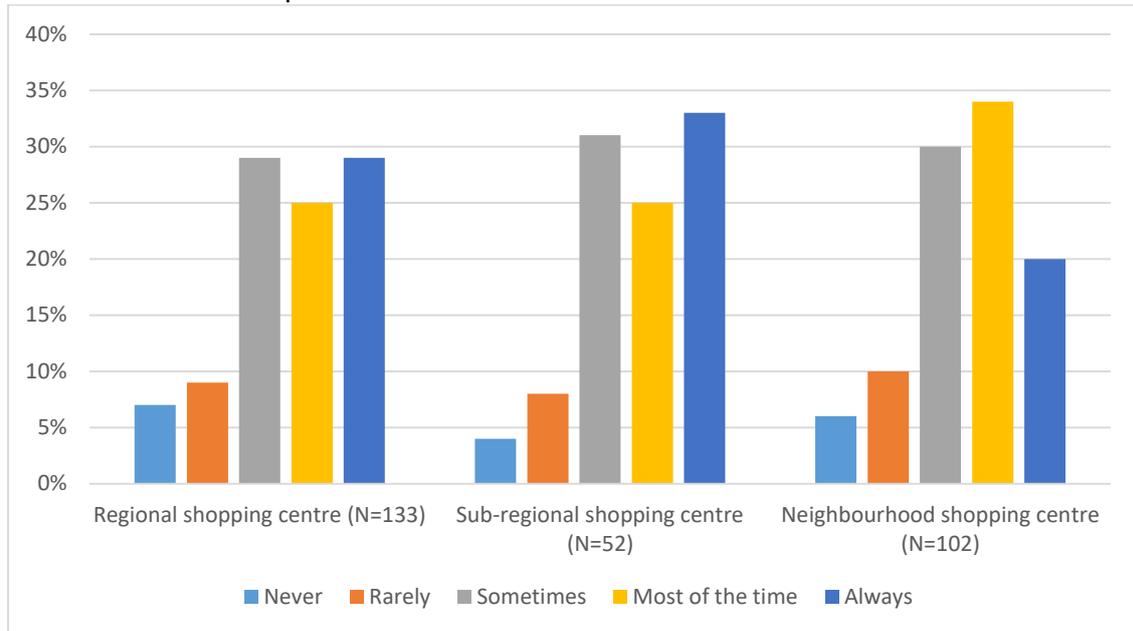
Thus, respondents who reside near neighbourhood shopping centres are less likely to consider distance 'highly important' when intending to make one-stop shopping (Figure 44). Figure 44 also indicates that a majority of respondents considered distance 'less important' when they intend to purchase a speciality product, irrespective of the type of shopping centre located closest to their residence.

Figure 44: Perceived level of importance of distance to shopping centre based on the type of shopping centre located closest to respondents' residences



In terms of impulse purchases, Figure 45 depicts that respondents residing near a neighbourhood shopping centre reported a lower frequency in comparison to respondents residing near the sub-regional and regional shopping centres.

Figure 45: Frequency of impulse purchases based on the type of shopping centre located closest to respondents' residences



The Kruskal-Wallis test was employed to investigate any major differences in in-store browsing time spent by respondents, based on the type of shopping centre located closest to respondents' residences. The result was found to be statistically insignificant with a p value > 0.10. This implies that the size of the shopping centre located closest to a respondent's residence has no major influence on the in-store browsing time expended during goal-oriented (i.e., with the intention to purchase) and recreational shopping visits. Furthermore, respondents' perceived level of importance of distance to shopping centre was also identified as having no major influence on their in-store browsing time (i.e., time spent during objective and recreational shopping visits). The Kruskal-Wallis test was statistically insignificant with a p value > 0.10.

The results in this section showed that income status influenced the importance of distance to a shopping centre. Additionally, respondents' perceived level of importance of distance to shopping centre influenced their frequency of impulse purchasing. Considering the importance of proximity of the shopping centre for time convenient shopping activities, the next Section 5.6 further examines the reasons for the CFA result in Section 5.3 and explores how online shopping impacts on shoppers' in-store browsing behaviour.

## **5.6 Online product comparison and pre-determined purchase objective**

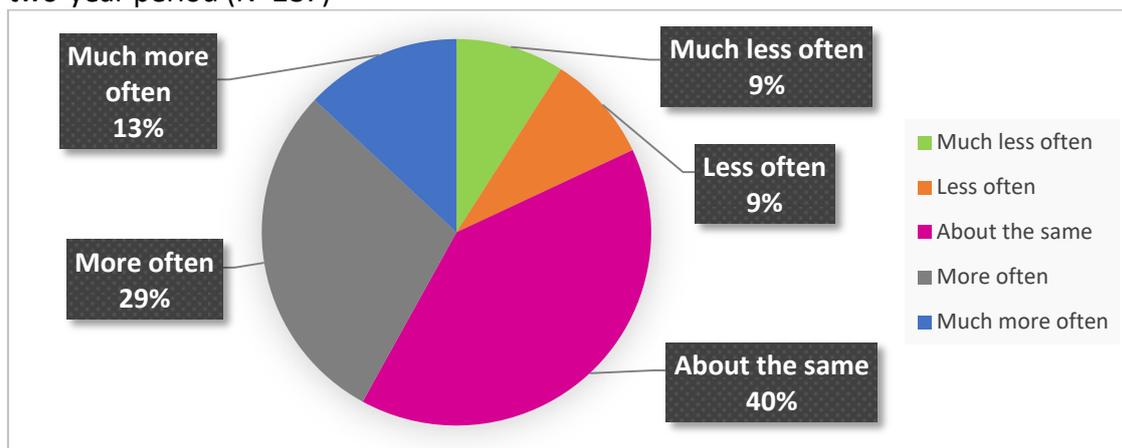
Section 5.5 identified that for many respondents distance to shopping centre was seen as 'not at all important' or 'moderately important' when they were browsing and/or purchasing their most preferred speciality products in-store. The presence of large Asian communities within the sub-regional shopping centre trading area (refer Chapter 3, Section 3.2.1) may be a factor for distance to shopping centre being less important. For example Zhang and Kim (2013) found that Asian customers were highly brand conscious. Therefore, this cultural cohort is likely to overcome the importance of proximity to the shopping centre when browsing and purchasing their preferred speciality products. However, distance to shopping centre in the current research was more important for those respondents with a higher income. The CFA result in Section 5.3 showed a significant positive relationship between respondents' pre-determined purchase objective and online product comparison prior to purchasing in-store (i.e., under TAM latent variable). This result implies that time constrained shoppers who prefer to visit the shopping centre with a pre-determined purchase objective may use online shopping to determine their shopping destination.

Using a three step method, Section 5.6 examines the online shopping behaviour of the respondents. Firstly, by identifying the frequency of online purchases over the period of two years. Secondly, by examining the frequency of online product comparison prior to purchasing in-store. Thirdly, by identifying the perceived level of trust in online shopping. This section also analyses the probability of engaging in online product comparison according to respondents' preferred shopping destination for browsing speciality products.

### **5.6.1 Consumers' frequency of online purchases over the two-year period**

Figure 46 indicates online shopping to have a positive prospect, as 82% of all respondents perceived that they have not 'reduced' (i.e., 'less often' and 'much less often') their frequency of online purchases for speciality products (i.e., respondents' most preferred speciality product for in-store browsing) over the two-year period.

Figure 46: Respondents' frequency of online purchases for speciality products over two-year period (N=287)



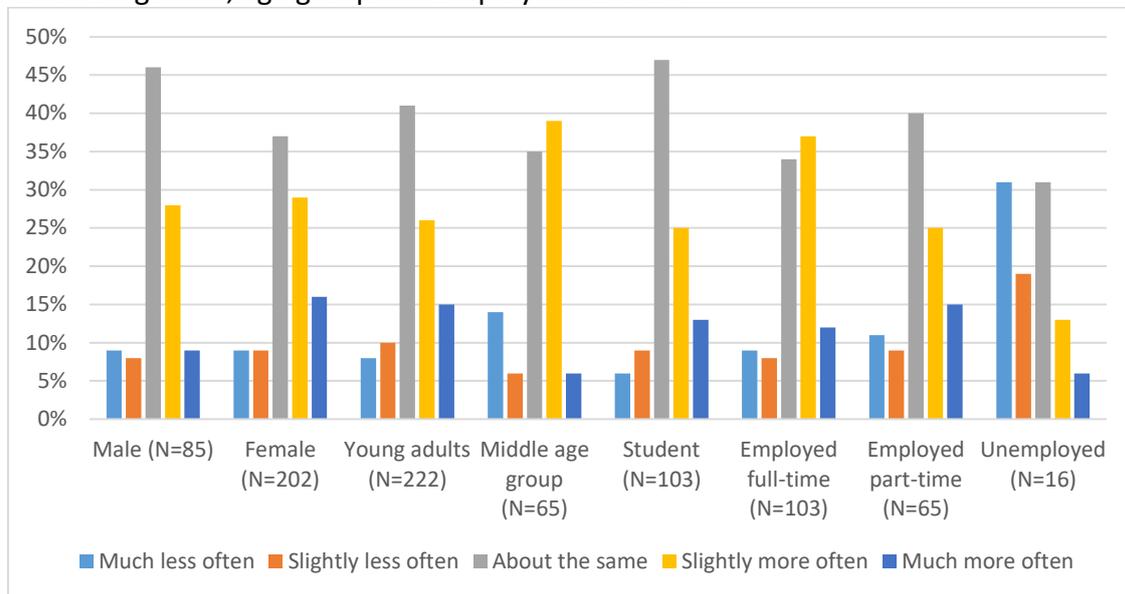
The current study found that 46% of male and 37% of female respondents had 'neither increased nor decreased their online purchases' for speciality products over the period of two years (see Figure 47). However, the percentage of female respondents who had increased their online purchases for speciality products over a two-year period was slightly greater in comparison to male respondents. This result contrasts with the findings of Naseri and Elliott (2011), who found that male shoppers in Australia made more online purchases than female shoppers.

Middle-aged respondents (45%) increased their online purchases of speciality products over the preceding two years (i.e., slightly more often and much more often). This result reflects the findings of the online shopping report published by the National Australia Bank (2017) which indicated that middle-aged adults made more online purchases than young adults during the calendar year 2017. In contrast, 41% of young adults in the current research indicated they had retained the same frequency of online purchases for speciality products over the period of two years (as evidenced in Figure 47). This result contrasts with the work of Naseri and Elliott (2011), who found that online shoppers in Australia were mostly the younger cohort. A key factor for this difference could be the result of Naseri and Elliott (2011) work being based on data collected in 2002. Since this time with experience and trust the uptake of online purchasing among older adults has grown.

The employment status of the respondents also indicated a difference in the frequency of online purchases over the previous two year period. Figure 47 indicates that the frequency of online purchases by respondents who were employed full-time was

greater than those who were employed part-time, unemployed and/or students. This result aligns with the findings by Naseri and Elliott (2011), which indicated shoppers who were employed full-time had a higher intention of shopping online.

Figure 47: Respondents' frequency of online purchases over the period of two years based on gender, age group and employment status



In addition, a majority (56%) of respondents with an income of AUD\$75,000 p.a. and above displayed higher frequency of online purchasing (i.e., 'slightly more often' and 'much more often') over the two year period (see Figure 48). These results support Naseri and Elliott's (2011) findings that higher income shoppers tended to shop online more often. As for the other income groups in the current study, their frequency of online purchases over the two-year period remained the same.

Figure 48: Respondents' frequency of online purchases over the period of two years based on income level

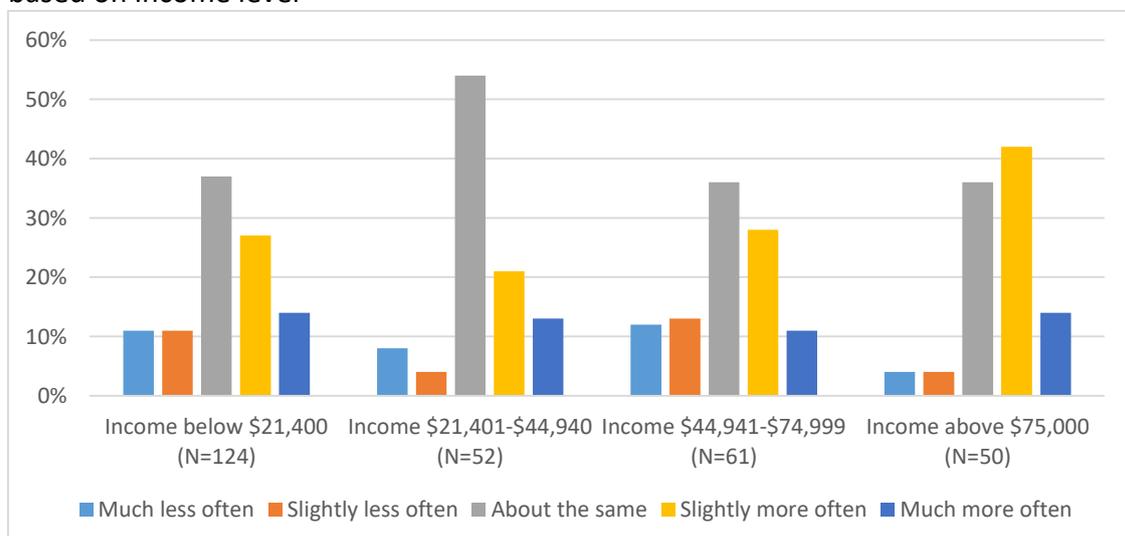
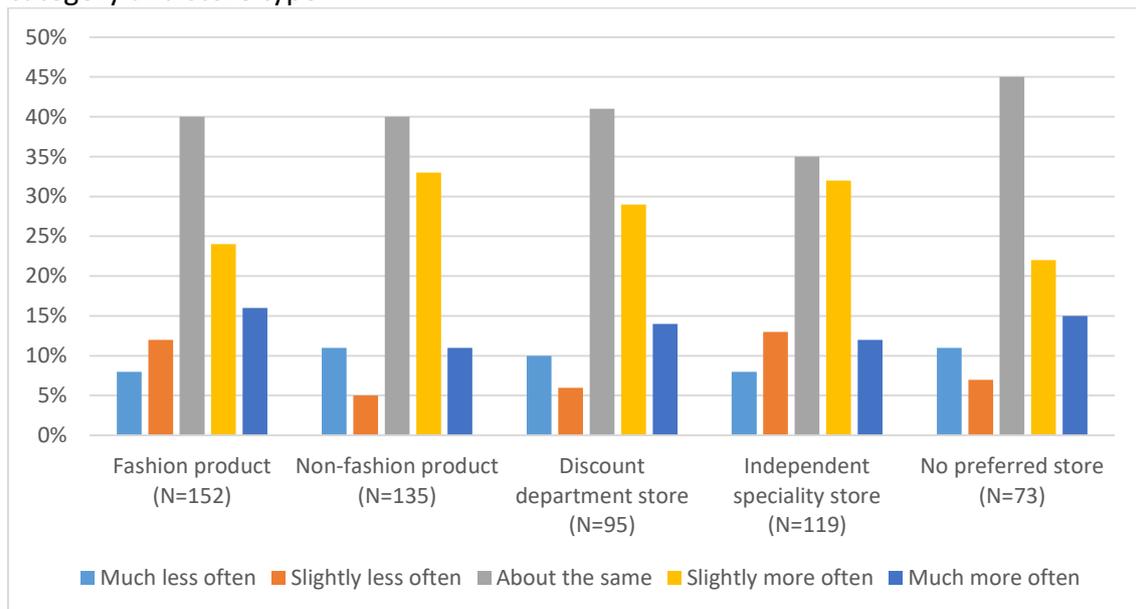


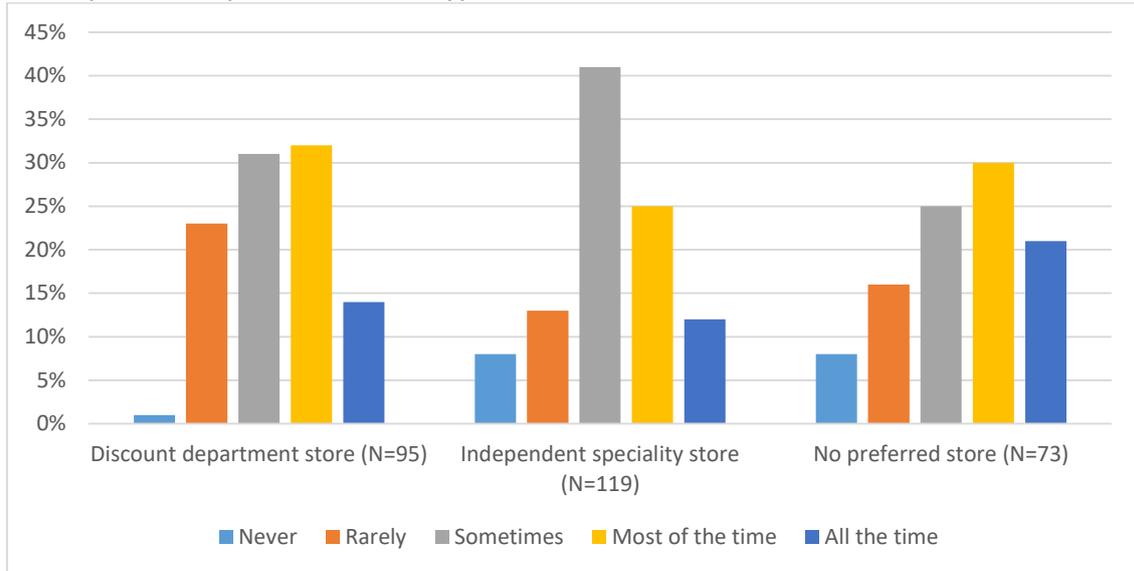
Figure 49, shows that online purchases over the period of two years were greater for non-fashion speciality products in comparison to fashion products. The current study also identified that respondents who had a preferred store from which they purchased the speciality products were more likely to increase their frequency of online purchases (i.e., 'slightly more often' and 'much more often') than respondents who had no store preference (see Figure 49).

Figure 49: Frequency of online purchases based on respondents' preferred product category and store type



However, a majority of respondents who preferred to purchase at an independent speciality store and discount department store indicate low frequency ('never', 'rarely' and 'sometimes') of online product comparison prior to purchasing in-store (see Figure 50). In contrast, the frequency of online product comparison in the current study was highest for respondents with no preference for a particular store type. This suggests that online shopping may have influenced these respondents to some extent to visit the shopping centre with a pre-determined purchase objective. These findings indicate that online shopping can be beneficial (i.e., in terms of transportation cost) for those consumers who are unsure about which store or shopping centre offers the product that is suitable to their needs.

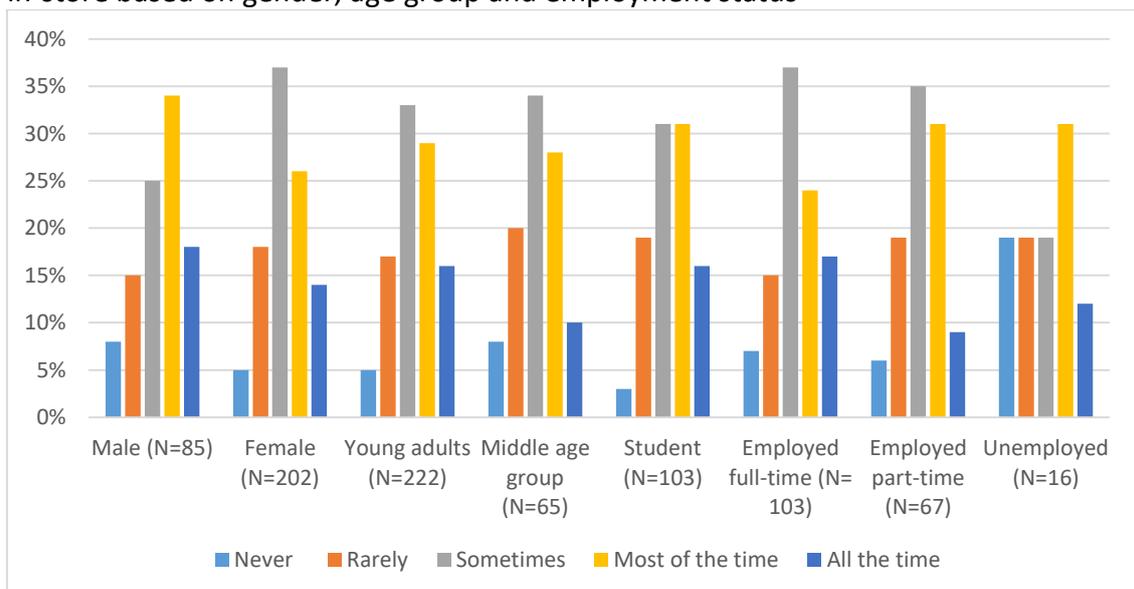
Figure 50: Frequency of comparing product online prior to purchasing in-store based on respondents' preferred store type



### 5.6.2 Influence of demographic factors on online product comparison

Figure 51 indicates a difference in the frequency of online product comparison between male and female respondents. A majority (52%) of male respondents indicated that they compared the speciality products online frequently (i.e., 'most of the time' and 'always') prior to purchasing in-store. In contrast, a majority (60%) of female respondents have low frequency of online product comparison for speciality products prior to purchasing in-store (i.e., 'never', 'rarely' and 'sometimes').

Figure 51: Respondents' frequency of online product comparison prior to purchasing in-store based on gender, age group and employment status



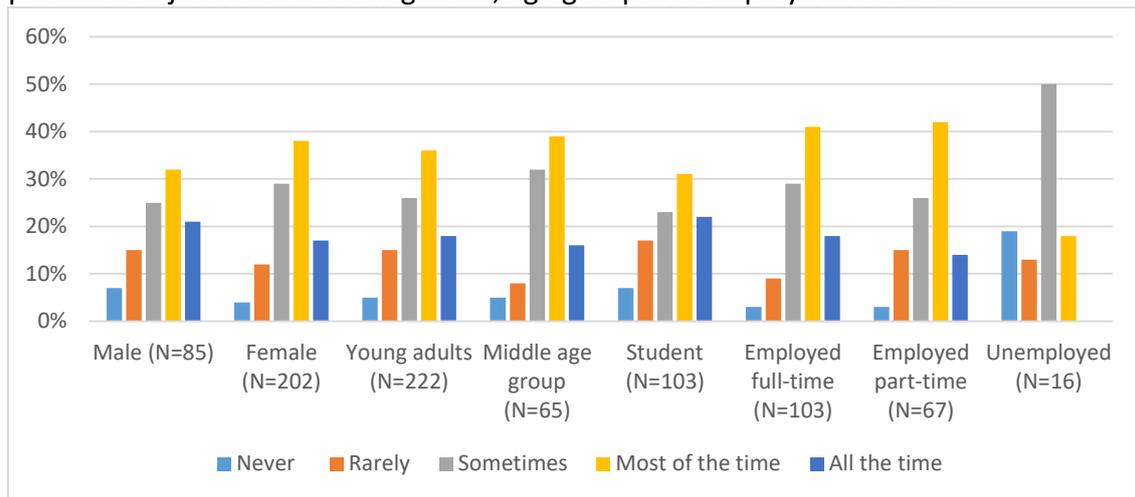
The majority of male (53%) and female (55%) respondents frequently (i.e., 'most of the time' and 'always') visited the shopping centre with a pre-determined purchase objective (see Figure 52). Nevertheless, for female respondents, the high frequency of pre-determined purchase objective and low frequency of online product comparison indicates that the shopping centre orientation (i.e., fashion) and previous shopping experiences were important in determining their shopping destination.

There are no major differences between young adults and middle-aged groups when comparing products online prior to purchasing in-store (see Figure 51). A majority of both young (55%) and middle-aged (62%) respondents indicated they had low frequency (i.e., 'never', 'rarely' and 'sometimes') of online product comparison prior to purchasing in-store. However, more of the middle-aged respondents had increased their frequency of online purchasing of speciality products over the period of two years. Thus, the results imply that the middle-aged respondents regularly used online shopping with an intention to purchase the product most of the time.

Employment status was also identified as having an influence on the frequency of online product comparison prior to purchasing in-store. Respondents who identified as being employed full-time, were likely to compare products online less frequently (i.e., 'most of the time' and 'always') in comparison to respondents who were unemployed, a student and/or employed part-time (see Figure 51). Despite the frequent online product comparison, there was no increase in the frequency of online purchases over the two-year period for most students, unemployed and part-time employed respondents. As for full-time employed respondents the frequency of online product comparison was lower, despite a majority of them having increased their online purchases over the period of two years. The results suggest that the availability of an online store (i.e., a physical store offering their product in an online store as well) would be beneficial for respondents employed full-time as they may use online shopping to purchase the product when they are time poor. Furthermore, Figure 52 indicates that the respondent's employment status had an influence on the frequency of shopping centre visits with a pre-determined purchase objective. The majority of respondents (except for those unemployed) frequently visited shopping centres with pre-determined shopping objectives.

Drawing on Figures 51 and 52, the frequency of online product comparison and the tendency to visit a shopping centre with a pre-determined purchase objective was similar for students and those employed part-time. Thus, online shopping may have an influence on students and those employed part-time respondents who prefer to compare products online prior to purchasing in-store.

Figure 52: Respondents' frequency of shopping centre visits with pre-determined purchase objectives based on gender, age group and employment status



In terms of income level, Figures 53 and 54 depicts different income groups' and the frequency of their online product comparisons prior to purchasing in-store at a shopping centre.

Despite an increase in the frequency of online purchases over a two-year period, half (50%) of respondents with an income of AUD\$75,000 p.a. and above reported a low frequency of online product comparison (see Figure 53). However, Figure 54 indicates that 66% of this income group frequently (i.e., 'most of the time' and 'always') visited the shopping centre with pre-determined purchase objectives. Hence, for this income group, the increase in online purchases is unlikely to have a negative effect on shopping centre patronage.

As for those respondents with an income between AUD\$44,941-\$74,999 p.a. the majority (56%) frequently (i.e., 'most of the time' and 'always') visited a shopping centre with pre-determined purchase objectives. However, 67% of them (i.e., respondents with income between AUD\$44,941-AUD\$74,999) did not compare the speciality products online frequently prior to purchasing in-store. Furthermore, a majority of this income group had not increased their online purchases over the period

of two years. Hence, the in-store retail experience was still an important element for this group in determining their shopping destination. In contrast, a majority (52%) of respondents with an income between AUD\$21,401-\$44,940 p.a. tended to compare the speciality products online frequently (i.e., 'most of the time' and 'always') prior to purchasing in-store. Hence, this income group were more likely to use online shopping to determine their purchase decisions prior to visiting in-store.

However, unlike the higher-income groups, less than half (47%) of respondents whose income was below AUD\$21,400 p.a. frequently (i.e., 'most of the time' and 'always') visited shopping centres with pre-determined purchase objectives. Furthermore, they had low usage of online shopping in comparing speciality products prior to purchasing in-store. Therefore, shopping centre visits for this particular income group were likely to be influenced by the shopping centre orientation.

Figure 53: Respondents' frequency of online product comparison prior to purchasing in-store based on income level

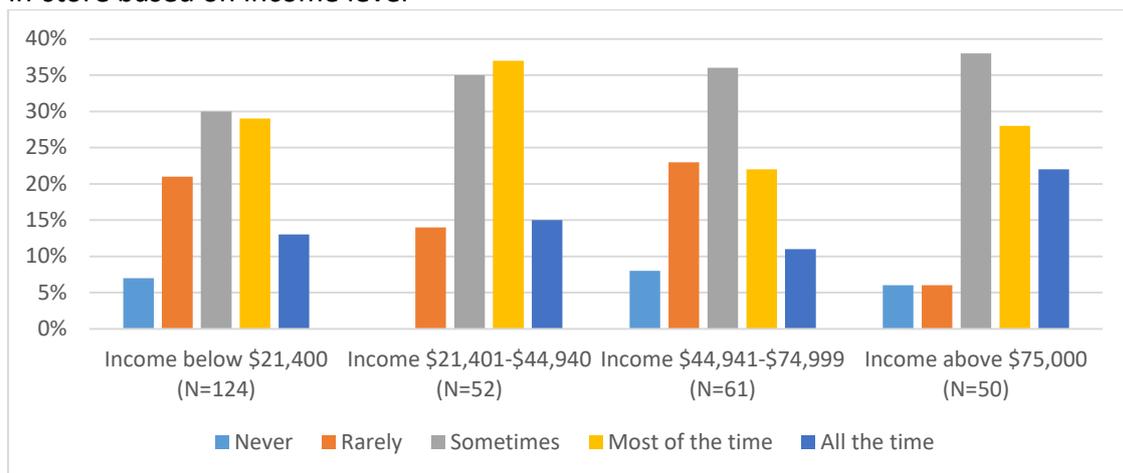
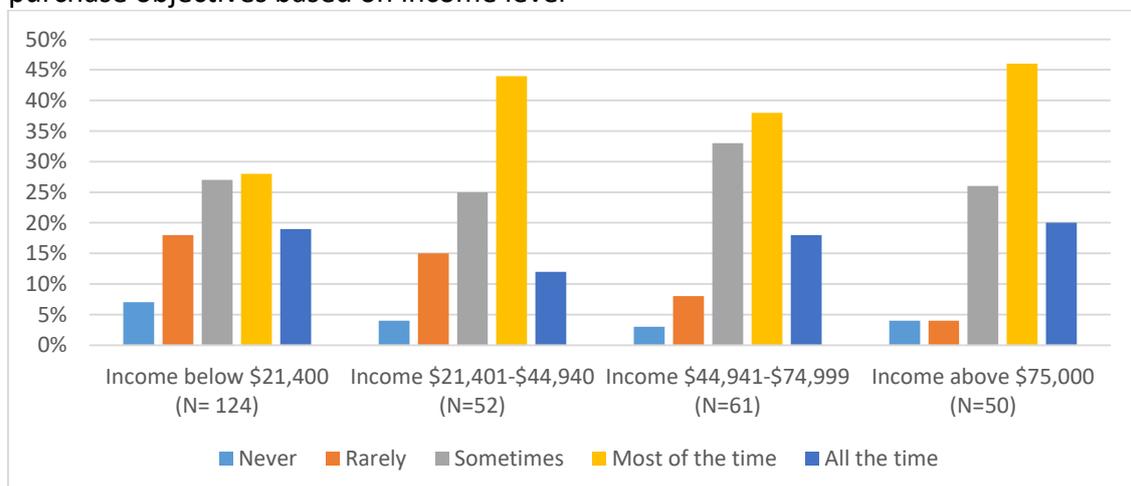


Figure 54: Respondents' frequency of shopping centre visits with pre-determined purchase objectives based on income level



Thus, respondents' online product comparison behaviour prior to purchasing in-store was influenced by income, especially amongst AUD\$21,401-AUD\$44,941 p.a. who visits the shopping centre with a pre-determined purchase objective.

Nevertheless, the frequency of online product comparison for speciality products prior to purchasing in-store was low for 56% of respondents (see Figure 55). However, Figure 56 indicates that a majority of all respondents frequently (i.e., 'most of the time' and 'always') visited shopping centres with pre-determined purchase objectives. Hence, shopping centre orientation (i.e., fashion) is likely to be pertinent in influencing consumers' choice of shopping centre within the sub-regional shopping centre trade area.

Figure 55: Respondents' frequency of online product comparison prior to purchasing in-store (N=287)

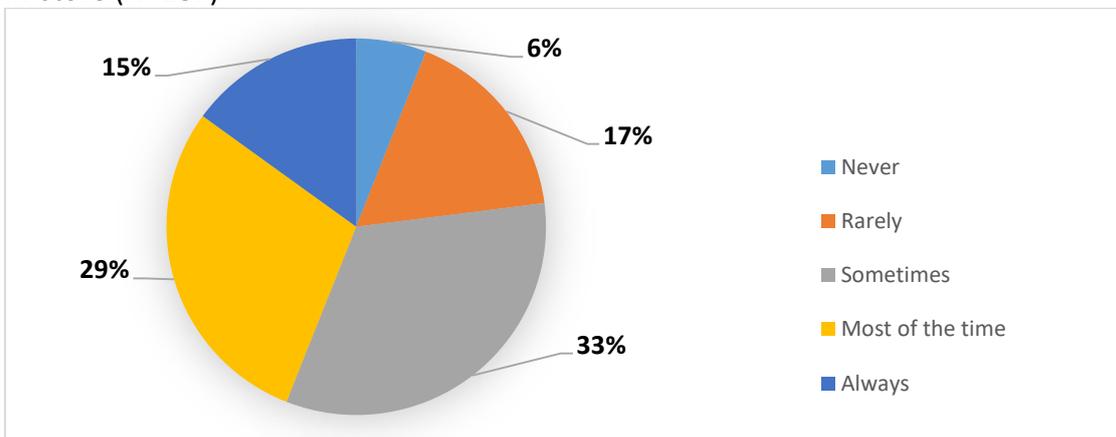
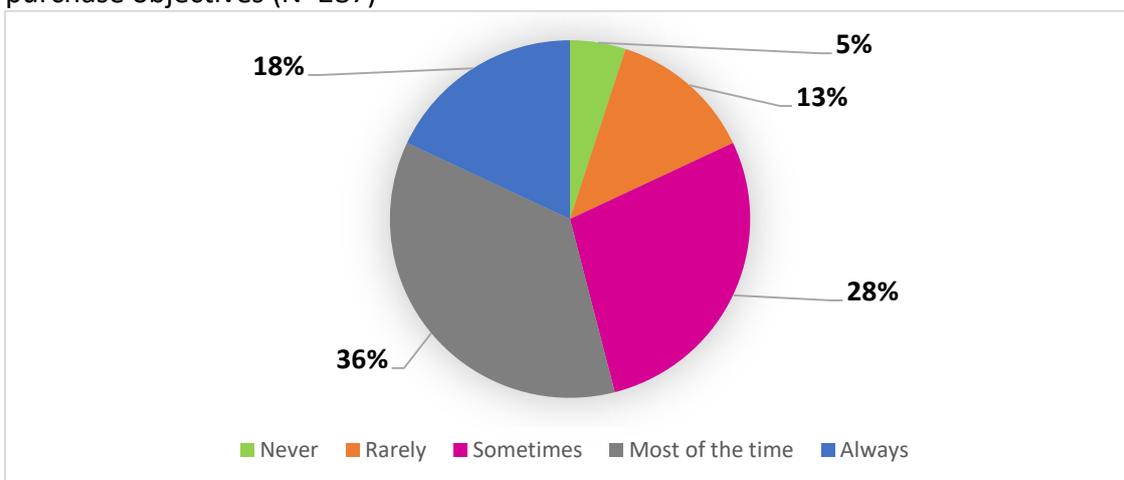


Figure 56: Respondents' frequency of shopping centre visits with pre-determined purchase objectives (N=287)



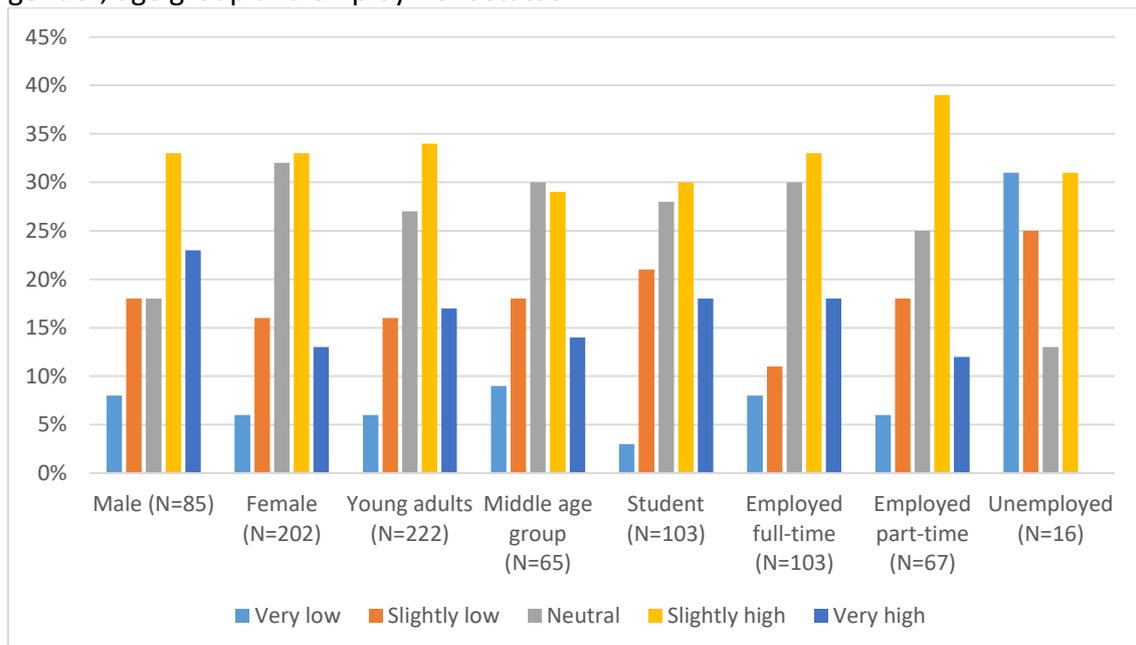
### 5.6.3 Consumers' perceived level of trust in online shopping

Figure 57 reports respondents' perceived level of trust in online shopping based on their demographic profile. The results indicate that male respondents had a higher level of trust in comparison to female respondents when purchasing speciality products online. Valentine and Powers (2013) had similar findings, with female shoppers having lower levels of trust in online shopping than male shoppers.

Trust in online shopping was greater for young adults in comparison to middle aged respondents. This is despite the middle-aged respondents having higher frequency of online purchases in comparison to young adults. These results align with findings by Wan et al. (2012), which indicated that older shoppers were willing to take risks (i.e., in terms of both uncertainty and opportunity) with shopping online due to their higher income level.

Furthermore, on the basis of employment status, Figure 57 indicates that perceived level of trust in online shopping was high for the majority of employed full-time (51%) and part-time (51%) respondents. In contrast, the majority of respondents who identified as students (52%) or unemployed (69%) indicated they had a lower perceived level of trust (i.e., 'very low', 'slightly low' and 'neutral').

Figure 57: Respondents' perceived level of trust in online transactions based on gender, age group and employment status



In terms of income level, Figure 58 reports consumers' perceived level of trust on online shopping. The majority (58%) of respondents with the income of AUD\$75,000 p.a. and above had a higher level of trust in online shopping. This income group also had increased their frequency of online purchases over the period of two years (see Figure 48). In contrast, 27% of respondents with an income between AUD\$44,941-\$74,999 p.a. showed the lowest level of trust (i.e., very low) in online shopping in comparison to other income groups. This income group (AUD\$44,941-\$74,999 p.a.) also had the lowest frequency of online product comparison and online purchases over the two year period in comparison to other income group (see Figure 48 and 53).

As for respondents with an income between AUD\$21,401-\$AUD\$44,940, the majority (54%) had a higher level of trust in online transactions. In addition, they frequently compared products online and retained the same frequency of online purchases over the period of two years (see figure 48 and 53). Thus, this income group (i.e., AUD\$21,401-\$44,940) showed a tendency to use online shopping frequently when purchasing speciality products. Meanwhile, more than half (53%) of respondents with the lowest income level (i.e., below AUD\$21,400 p.a.) did not had a higher level of trust in online shopping. The majority of respondents with income below AUD\$21,400 p.a. also had low frequency of online purchases over the two year period (see Figure 48).

Figure 58 also indicated that the level of trust in online transactions for the fashion product category is relatively low in comparison to the non-fashion product category. These findings substantiate Seock and Bailey (2008) research that noted low confidence in fashion products (e.g., quality of the product) restrained shoppers from making more frequent online purchases. Fashion is also an emotional purchase, especially for women (Workman, 2010), so if they are disappointed with an online experience there might be more impact on their use of online shopping.

Figure 58: Respondents' perceived level of trust in online transactions based on income level, respondents' preferred product category and type of store

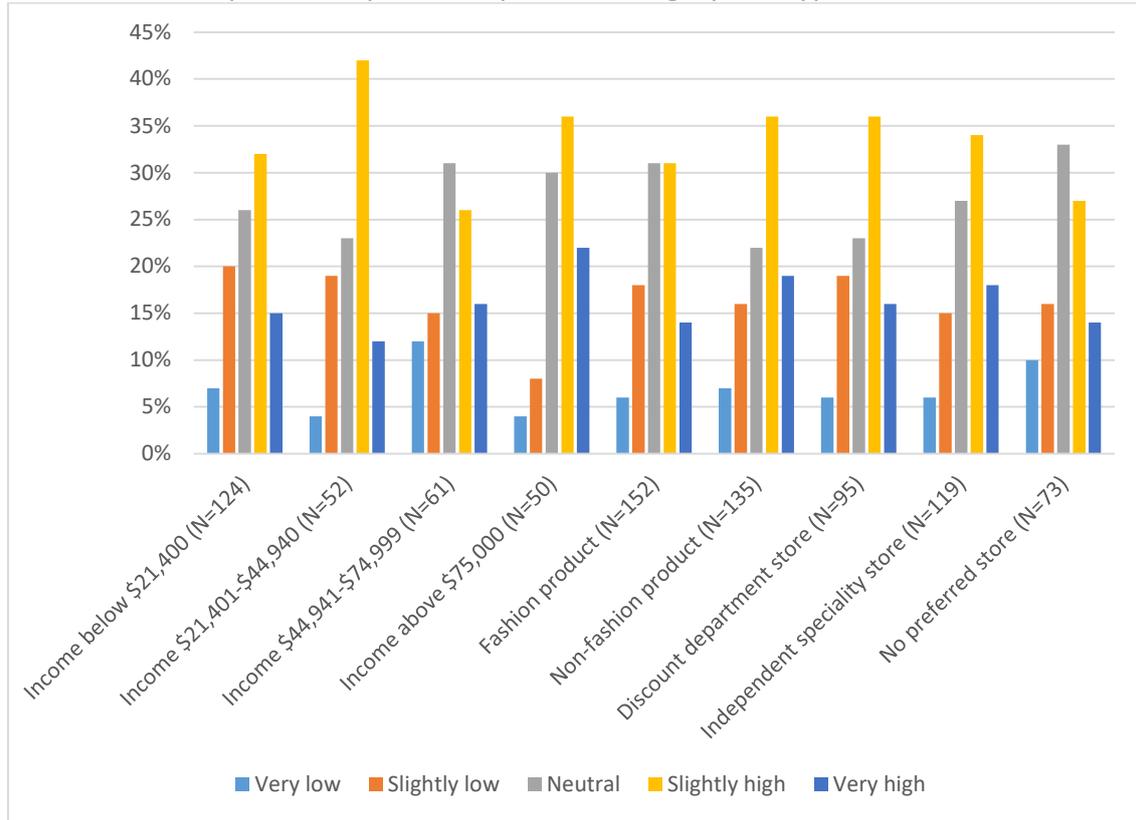


Figure 58 also indicates that respondents who had a preferred store (i.e., either discount department or independent speciality store) when purchasing speciality products, showed higher levels of trust in online shopping than respondents who had no store preference. There was no major difference in the perceived level of trust of respondents who preferred either the discount department stores or independent speciality stores. These results suggest that the physical presence of the retailers may influence respondents' perceived level of trust in online shopping, as the knowledge that the store is accessible gives them confidence.

Reimers and Chao (2014) suggested that shoppers gain higher satisfaction with their in-store browsing activity if they can minimise shopping time spent on non-browsing activities. Based on respondents' preferred shopping destination, Table 22 presents the ordinal regression to predict the odds for the survey respondents to compare products online prior to purchasing in-store. Table 23 presents the ordinal regression to predict the odds for the survey respondents to have the tendency to shop with pre-determined purchase objectives.

The results showed that the odds for comparing products online prior to purchasing in-store was 4.8 times higher for those respondents who preferred to browse on online shopping sites than for respondents who selected to browse at the regional shopping centre only. The odds ratio for these two categories was statistically significant with a 90% confidence interval and a p value < 0.05.

Table 22: Cumulative odds ratio for respondents to compare products online prior to purchasing in-store based on respondents' preferred shopping destination for browsing speciality products

Dependent variable		Respondents' frequency of online product comparison prior to purchase in-store		
Independent variable				
	Model fitting information (chi-square)	39.54***		
	Goodness of fit (Pearson Chi-square)	13.059		
	Sig. (goodness of fit)	0.365		
	Pseudo R-Square (Nagelkerke)	0.136		
	Test of parallel lines (chi-square)	16.289		
	Sig. (test of parallel lines)	0.178		
Variables	Parameter	Expo(b)	Std. error	Wald
Respondents' preferred shopping destination for browsing speciality products	Other centre (N=19)	1.06	0.436	0.019
	Sub-regional shopping centre (N=19)	0.34**	0.441	5.985
	Neighbourhood centre (N=27)	0.74	0.374	0.647
	Online shopping (N=46)	4.8***	0.316	24.65
	Regional shopping centre (N=176)	--	--	--

Significance level: P<0.10\*; P<0.05\*; P<0.01\*\*

Furthermore, respondents browsing online shopping sites also exhibited a greater odds ratio (odd ratio=2.14) to visit a shopping centre with pre-determined purchase

objectives, in comparison to respondents who preferred browsing at the regional shopping centre. The odds ratio for these two categories was statistically significant with a 90% confidence interval and p value < 0.05.

Table 23: Cumulative odds ratio for respondents to take a shopping list to the shopping centre based on respondents' preferred shopping destination for browsing speciality products

Dependent variable		Respondents' frequency of shopping centre visits with pre-determined purchase objectives		
Independent variable				
	Model fitting information (chi-square)	11.81***		
	Goodness of fit (Pearson Chi-square)	11.27		
	Sig. (goodness of fit)	0.506		
	Pseudo R-Square (Nagelkerke)	0.043		
	Test of parallel lines (chi-square)	13.45		
	Sig. (test of parallel lines)	0.337		
Variables	Parameter	Expo(b)	Std. error	Wald
Respondents' preferred shopping destination for browsing speciality products	Other centre (N=19)	1.75	0.440	1.631
	Sub-regional shopping centre (N=19)	0.48	0.435	2.896
	Neighbourhood centre (N=27)	1.29	0.374	0.457
	Online shopping (N=46)	2.14**	0.304	6.294
	Regional shopping centre (N=176)	--	--	--

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

Table 22 also indicates that the online shopping option has a high probability of influencing online browsers in terms of their in-store browsing behaviour. Online browsers were more likely to compare products online prior to purchasing in-store and they frequently visit shopping centres with a pre-determined purchase objective.

Weltevreden (2007) found consumers who frequently use online shopping for browsing and purchasing products tend to spend less time when shopping in a physical store. Therefore, the Kruskal-Wallis test was conducted in order to examine any significant differences in the in-store browsing time spent by respondents based on their preferred shopping destination. Test results showed there was a significant difference in in-store browsing time expended by respondents when visiting the shopping centre with a purchase intention. The Kruskal-Wallis test score  $\chi^2(4) = 9.628$  was statistically significant at 0.04 (i.e., p value < 0.05).

The result also indicates in-store browsing time was similar for those respondents who preferred to browse online (30 minutes) and at the regional shopping centre only (30 minutes). This implies that online shopping and/or browsing does not reduce the in-store browsing time when shopping for specialty products. As for sub-regional and neighbourhood shopping centres, the in-store browsing time spent by respondents was 15 minutes and 10 minutes respectively. Hence, consumer in-store browsing time at sub-regional and neighbourhood shopping centre was lower in comparison to regional shopping centre.

Based on respondents' preferred shopping destination, the Kruskal-Wallis test was again employed to identify any major differences in in-store browsing time expended during recreational shopping visits. The results showed no significant differences in the in-store browsing time spent as the p value > 0.10.

Section 5.6 identified that online browsing for speciality products had a low negative influence on in-store browsing behaviour. In contrast, the respondents who preferred browsing online indicated they spent more time browsing in-store when looking for speciality products. Respondents with an income of AUD\$21,401-AUD\$44,940 p.a. had the highest frequency of online product comparison prior to purchasing in-store. However, time-poor respondents with income of AUD\$75,000 p.a. and above may prefer to use online shopping with the intention of making a direct purchase, rather than comparing products online and visiting the physical store. The results in this section have helped to explain why online shopping has a low impact on respondents' shopping behaviour (i.e., in-store browsing time and shopping centre patronage) during the weekday late evening trading hours. Section 5.7 elucidates the result of CFA

analysis in Section 5.3 in relation to respondents' motives for shopping on days having extended trading hours.

### 5.7 Restricted retail trading hours and shopping inconvenience

Section 5.7 examines the factors influencing respondents' choice of a particular store type (i.e., discount department store/independent speciality store) when shopping for speciality products. This section also analyses respondents' perceived level of shopping inconvenience caused by the shorter trading hours of speciality stores, and as a result, the likelihood of them adopting online shopping.

The results indicate that 47% of respondents who preferred to browse the fashion product category indicated they would purchase the product from an independent speciality store (see Figure 59). In contrast, the discount department store was preferred by 42% of respondents who preferred browsing non-fashion products in-store.

Figure 59: Respondents' preferred store type based on product category

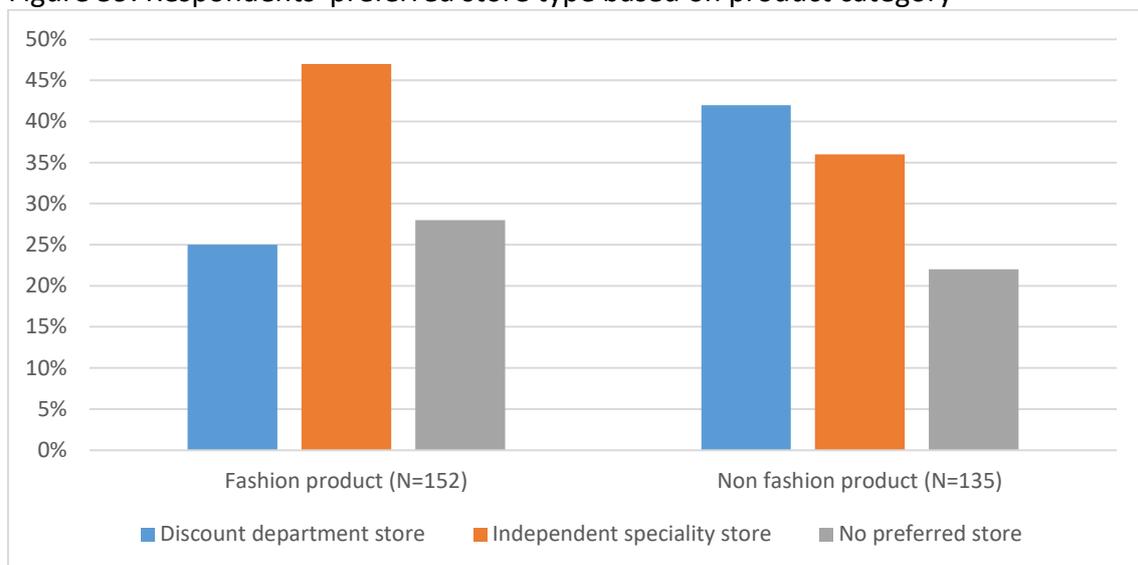
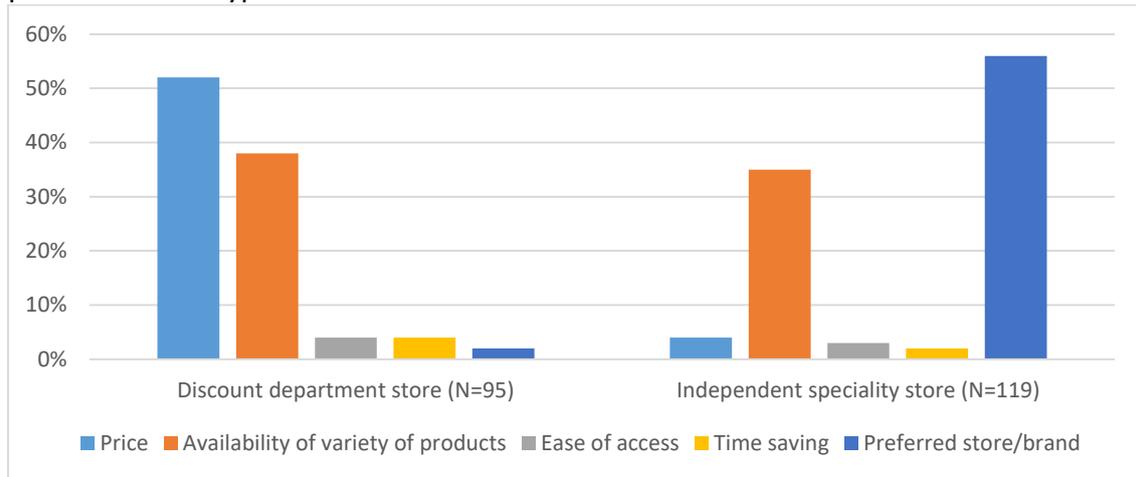


Figure 60 show that respondents preferred the discount department stores due to price and the availability of a variety of products. This result aligns with findings by Shim and Bickle (1994), who found that department stores were preferred by price-conscious shoppers, while independent speciality stores were attractive to respondents who were current patrons and who liked the variety of products provided (see Figure 60).

Figure 60: Factors determining respondents' choice of store based on respondents' preferred store type



As income levels increased, respondents' preference for shopping in the discount department store also increased (see Figure 61). An explanation for high-income consumers selecting discount department stores is that they want to reduce the 'regret' factor or dissatisfaction when given a circumstance where they are not able to shop for their preferred brand (e.g., luxury brand). This conclusion relates to Chan's (2015) research, which found that consumers preferred to have more choices when they were presented with unattractive purchase options, because the 'regret' factor is reduced when making a purchase decision. In other words, both discount department stores and speciality stores may be less desirable as they do not satisfy the social cognition of high-income consumers. However, the high-income consumers may trade the unavailability of their preferred brand by shopping at discount department stores if they are required to make an immediate purchase.

Figure 61: Respondents' preferred store type based on income level

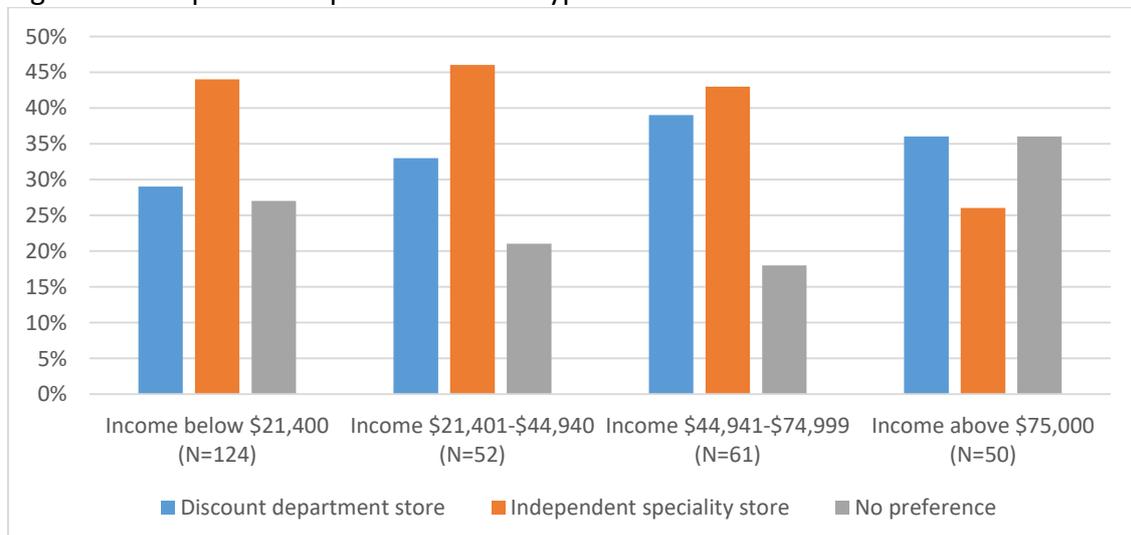


Figure 62 indicates that respondents with an income of AUD\$75,000 p.a. and above were likely to put higher emphasis on the price of the speciality product compared with other income groups. Store patronage (i.e., either for discount department or speciality store) also dropped with a rise in the income level of respondents. Hence, respondents with an income lower than AUD\$21,400 p.a. showed greater store patronage and higher income respondents were seeking value for money.

Figure 62: Factors determining respondents' choice of store type based on income level



The Kruskal-Wallis test was conducted to examine any significant differences in the time spent by male and female respondents in browsing speciality products, based on their preferred store type during recreational shopping visit. The test result indicated that female respondents (45 minutes) with a recreational shopping objective, spent more time shopping in speciality store in comparison to male respondents (15 minutes) when visiting a shopping centre. The Kruskal-Wallis test score  $\chi^2(1) = 12.330$  was statistically significant at 0.000 (i.e., p value < 0.05).

The browsing time at speciality stores for female respondents with a recreational shopping objective (45 minutes) was greater compared to those who preferred department stores (20 minutes). The Kruskal-Wallis test score  $\chi^2(2) = 7.661$  was statistically significant at 0.022 (i.e., p value < 0.05).

The Kruskal-Wallis test was once again utilised to investigate any significant differences in the time spent by male and female respondents in browsing speciality products during goal oriented (i.e., with the intention to purchase) shopping centre visits based on their preferred store type. However, respondents' browsing time

expended at different store types during goal-oriented shopping visits was not statistically significant at the  $p$ -value  $> 0.10$ .

Figure 63 reports the reasons why male and female respondents select a particular store (i.e., either discount department or independent speciality stores). The findings showed that store patronage was greater for male respondents who preferred browsing fashion products in-store (see Figure 63). This result diverges from findings by Michon et al. (2015), who reported that female fashion-oriented shoppers tended to patronise a store on a frequent basis.

Female respondents were more price-conscious when shopping for non-fashion products in comparison to fashion products (see Figure 63). According to Kinley, Josiam, and Lockett (2010) and Johnson (2008), female shoppers usually have high knowledge of fashion products and tend to make greater impulse purchases in comparison to most male shoppers. Thus, the aesthetic attributes of fashion products were seen to have influenced female respondents to be less price conscious in their purchases in comparison to non-fashion products.

Figure 63: Factors determining male and female respondents' choice of store based on fashion and non-fashion product categories



### 5.7.1 Consumers' preferred store type and extended trading hours

Table 24 presents the ordinal regression to predict the odds of survey respondents visiting the regional shopping centre during the weekday late evening (WLE) trading hours based on their preferred store type.

The results from the ordinal regression revealed that the odds ratio for respondents who preferred to shop at the independent speciality store (odds ratio=1.89) and discount department store (odds ratio=1.66) were greater in comparison to respondents who had no store preference. However, Table 24 indicates that only the odds ratio (odds ratio=1.89) between respondents preferring the independent speciality store and respondents with no store preference was statistically significant with a 90% confidence level and p value < 0.05.

Table 24: Cumulative odds ratio for respondents visiting regional shopping centre during the WLE trading hours based on respondents' preferred store type

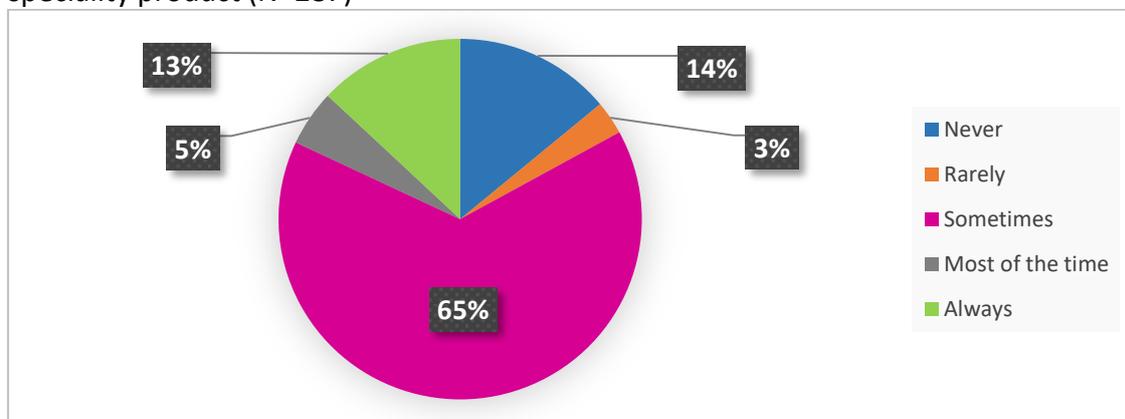
Independent variable		Dependent variable	Frequency of shopping visits to regional shopping centre on Thursdays during late evening trading hours		
	Model fitting information (chi-square)		6.109***		
	Goodness of fit (Pearson Chi-square)		2.877		
	Sig. (goodness of fit)		0.824		
	Pseudo R-Square (Nagelkerke)		0.022		
	Test of parallel lines (Chi-Square)		2.915		
	Sig. (test of parallel lines)		0.819		
Variables	Parameter	Expo(b)	Std. error	Wald	
Shoppers' preferred store type	Discount department store (N=95)	1.66	0.279	3.252	
	Independent speciality store (N=119)	1.89**	0.268	5.700	
	No preferred store (N=73)	--	--	--	

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

Table 24 above indicates that the WLE trading hours are likely to attract consumers who prefer to purchase speciality products at independent specialty stores. Goodman and Remaud (2015) found the main reason for consumers visiting speciality stores was to avail customer assistance (i.e., knowledge of the staff/retailer) when purchasing speciality products. Hence, the need for customer assistance is the possible reason for those consumers who intend to purchase at independent speciality store to prefer shopping during WLE trading hours.

Restricted trading hours may also affect those consumers who require customer assistance in-store. The CFA result in Section 5.3 validated that customer assistance was one of the reasons consumers shop during WLE trading hours. However, the results in Figure 64 showed that 65% of respondents required customer assistance for speciality products (i.e., respondents' most preferred speciality product for in-store browsing) 'sometimes'. Hence, the frequency of shopping centre visit during WLE trading hours with the intention of seeking customer assistance is likely to be low and inconsistent.

Figure 64: Respondents' frequency of customer assistance required when purchasing speciality product (N=287)



According to Bloch and Richins (1983) browsing is a search behaviour that is performed to satisfy an individual curiosity. In other words, consumers who enjoy browsing in-store are more likely to seek customer assistance than consumers who do not enjoy browsing. Table 25 presents the ordinal regression to predict the odds of the survey respondents requiring customer assistance when purchasing speciality products. This analysis was based on respondents' browsing behaviour (i.e., in-store browser and non-browser).

The results of the ordinal regression revealed that the odds for browsers to seek customer assistance when purchasing speciality products is 1.6 times greater than non-browsers. The odds ratio for these two categories was statistically significant with 90% confidence level and p value < 0.05.

Table 25: Cumulative odds ratio for respondents seeking customer assistance based on respondents' browsing behaviour

Independent variable		Dependent variable	Frequency of customer assistance required when purchasing speciality products		
	Model fitting information (chi-square)		4.358**		
	Goodness of fit (Pearson chi-square)		4.378		
	Sig. (goodness of fit)		0.223		
	Pseudo R-Square (Nagelkerke)		0.017		
	Test of parallel lines (chi-square)		4.662		
	Sig. (test of parallel lines)		0.198		
Variables	Parameter	Expo(b)	Std. error	Wald	
Respondents' in-store browsing behaviour	Non-browser (N=118)	0.60**	0.249	4.327	
	Browser (N=169)	--	--	--	

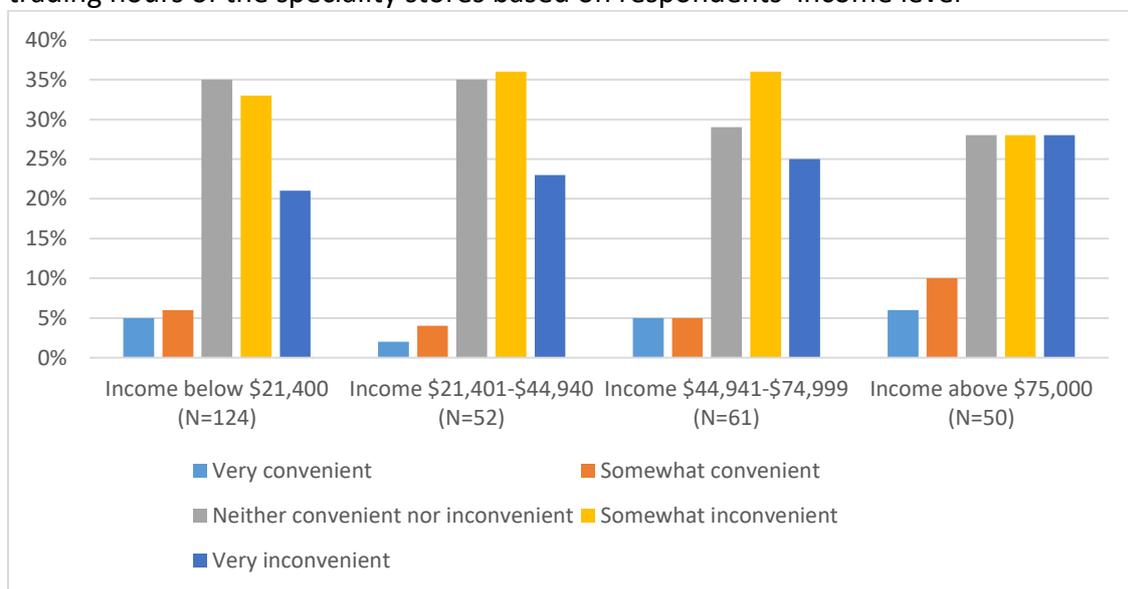
Significance level: P<0.10\*; P<0.05\*\*, P<0.01\*\*\*

Based on the result in Table 25 above and the CFA result in Section 5.3, the extended trading hours may facilitate consumers, especially browsers, in receiving effective customer assistance and the benefit of browsing in-stores that is in acquiring product information/knowledge.

### 5.7.2 Consumers' perceived level of shopping inconvenience

Figure 65 reports the perceived level of shopping inconvenience caused by the shorter trading hours of speciality stores, based on respondents' income level. Respondents with income of AUD\$75,000 p.a. and above reported that they experienced more shopping inconvenience due to shorter trading hours in comparison to other income groups. Nevertheless, the majority of the respondents across all income levels reported they had experienced some shopping inconvenience due to shorter trading hours of the speciality stores.

Figure 65: Respondents' perceived level of shopping inconvenience due to shorter trading hours of the speciality stores based on respondents' income level

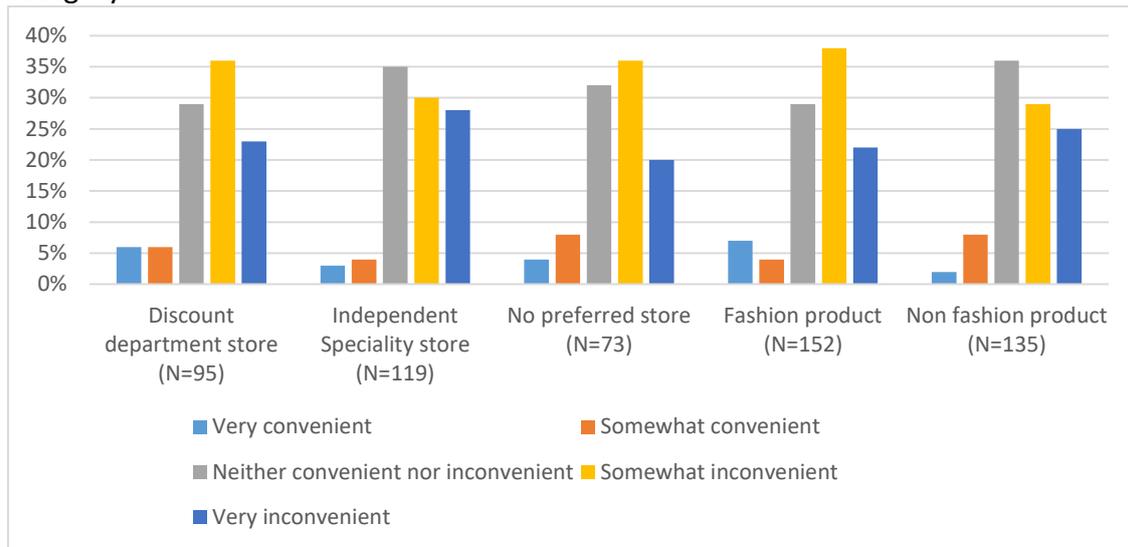


Furthermore, respondents who preferred to shop at the independent speciality stores reported the highest shopping inconvenience (i.e., very inconvenient) due to shorter trading hours (see Figure 66).

Figure 66, also indicates a majority of respondents who preferred browsing the fashion product category (60%) and non-fashion product category (54%) experienced shopping inconvenience (i.e., 'somewhat inconvenient' and 'very inconvenient') due to the shorter trading hours of speciality stores. However, those respondents shopping for fashion product categories experienced slightly higher shopping inconvenience compared to respondents shopping for non-fashion product categories. A possible explanation for this result is that 42% of the respondents who preferred browsing in the non-fashion product category indicated that they shopped at the discount

department store (refer section 5.7 Figure 59). For this group the likelihood of being affected by trading hours was low. Queensland’s retail trading hours legislation has provision for discount department stores (e.g., Kmart) and supermarkets (e.g., Coles) to stay open during late evening hours throughout the week (Retail First, n.d.; Business Queensland, 2017).

Figure 66: Respondents' perceived level of shopping inconvenience due to shorter trading hours of the speciality stores based on their preferred store type and product category

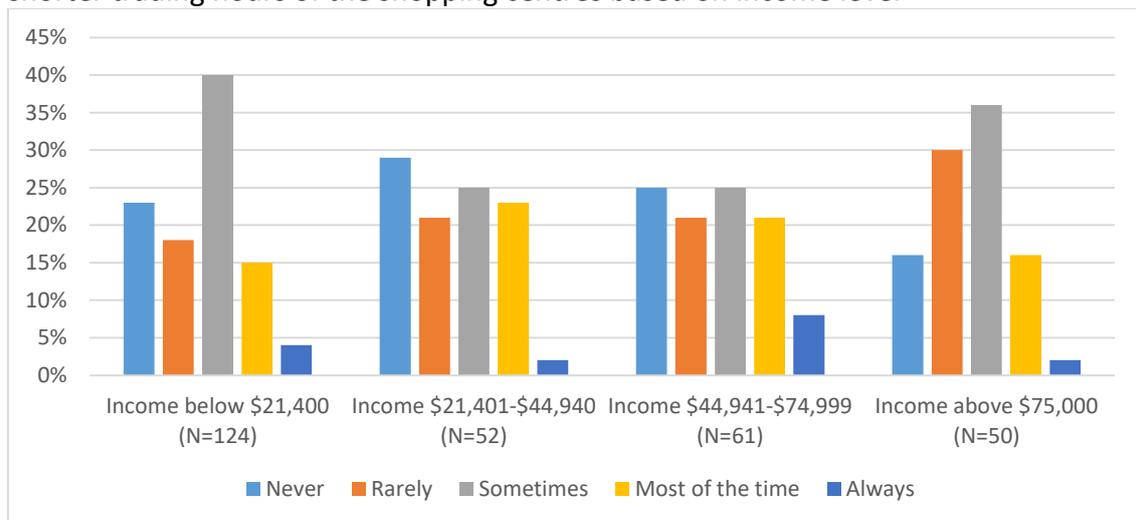


### 5.7.3 Consumers' frequency of online shopping due to restricted trading hours

In terms of income level, Figure 67 indicates that only 16% of respondents belonging to the highest income group purchased speciality products (i.e., respondents' most preferred speciality product for in-store browsing) online 'most of the time' due to the shorter trading hours of the shopping centres. However, in the previous section 5.6, a majority of this income group reported that they had increased their online purchases for speciality products over the period of two years. Hence, the results shown in Figure 67 imply that the shorter trading hours of the shopping centre are not the main reason for respondents with an income of AUD\$ 75,000 p.a. and above to purchase online. Non-availability of a particular product/brand (e.g., luxury goods) within the shopping centre or closer proximity to shopper's residences may be the possible reason for respondents with an income of AUD\$ 75,000 p.a. and above to purchase online (see section 5.4 and 5.5).

Figure 67 also indicates that respondents who had 'never' made a purchase online for speciality products due to shorter trading hours were more likely to be those with an income between AUD\$21,401-AUD\$44,940 p.a. Yet in the previous section 5.6, a majority of this particular income group frequently compared online speciality products prior to purchasing in-store. In other words, respondents within this income group would generally choose to purchase at a physical store despite frequently browsing online.

Figure 67: Respondents' frequency of online purchases for speciality products due to shorter trading hours of the shopping centres based on income level



Online shopping did not serve as an alternative to in-store shopping for the majority of respondents in the current research who experienced shopping inconvenience due to the limited trading hours of the shopping centre.

Table 26 presents the ordinal regression to predict the odds of the survey respondents visiting the regional shopping centre during late evening trading hours. This analysis was based on respondents' frequency of online shopping due to shorter trading hours of the shopping centre.

The results from the ordinal regression revealed that respondents who had never relied on online shopping due to limited trading hours of the shopping centre had the highest odd ratio (odds ratio=7.18) of visiting the regional shopping centre during the WLE trading hours. This was in comparison to those respondents who had always relied on online shopping. The odds ratio for these two categories was statistically significant with a 90% confidence level and p value < 0.01.

Table 26: Cumulative odds ratio for respondents visiting the regional shopping centre during WLE trading hours based on respondents' frequency of online purchases due to limited trading hours of the shopping centre

Independent variable		Dependent variable	Frequency of shopping visits to regional shopping centre on Thursdays during late evening trading hours		
	Model fitting information (chi-square)	14.21***			
	Goodness of fit (Pearson Chi-square)	13.48			
	Sig. (goodness of fit)	0.335			
	Pseudo R-Square (Nagelkerke)	0.051			
	Test of parallel lines (chi-square)	14.013			
	Sig. (test of parallel lines)	0.300			
Variables	Parameter	Expo(b)	Std. error	Wald	
Respondents' purchasing on online shopping due to shorter trading hours of shopping centres	Never (N=67)	7.18***	0.582	11.4	
	Rarely (N=61)	5.66***	0.584	8.81	
	Sometimes (N=96)	4.22**	0.565	6.49	
	Most of the time (N=51)	5.98***	0.593	9.09	
	Always (N=12)	--	--	--	

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

Table 26 suggests that those respondents who have used online shopping 'most of the time' due to limited trading hours of the shopping centre also indicated a high probability of visiting the regional shopping centre during the WLE trading hours. Thus,

WLE trading hours can attract both infrequent and frequent online shopping users to visit the shopping centre.

Section 5.7 showed that respondents who preferred shopping at independent speciality stores had a higher probability of visiting the regional shopping centre during the WLE trading hours. Despite this, the perceived level of shopping inconvenience caused by the shorter trading hours of the shopping centre did not enhance the usage of online shopping for the majority of the respondents. The next section 5.8 examines in more depth the result of CFA analysis in Section 5.3 in relation to shopping centre patronage during weekday late evening (WLE) trading hours.

### **5.8 Shopping preference on days offering extended retail trading hours**

Section 5.8 examines respondents' perceived level of shopping preference on days having extended trading hours. This section also analyses how size of and distance to the shopping centre can impact frequency of shopping visits during WLE trading hours.

Gender was not effective in discriminating preference for shopping on days that had extended trading hours (as evidenced in Figure 68). Less than half of male (47%) and female (48%) respondents indicated a high (i.e., 'most of the time' and 'always') preference for shopping on days that had extended trading hours. In terms of age, the results align with findings by Geiger (2007), who noted that the shoppers who preferred shopping during late evening hours were mostly young adults (see Figure 68). Employment status also indicated differences across the sample. Figure 68 indicates that respondents who were employed part-time and/or students had a stronger (i.e., 'always') preference for shopping on days that provided extended trading hours, in comparison to those respondents who were employed full-time. However, for those unemployed respondents, the result showed ambiguity which may have been influenced by their unscheduled programs to work and study. For example, unlike students or employed respondents, the unemployed groups do not have strict responsibilities related to work and study. Hence, they have the flexibility to visit the shopping centre anytime.

Figure 68: Respondents' perceived level of shopping preference on days having extended trading hours based on gender, age group and employment status

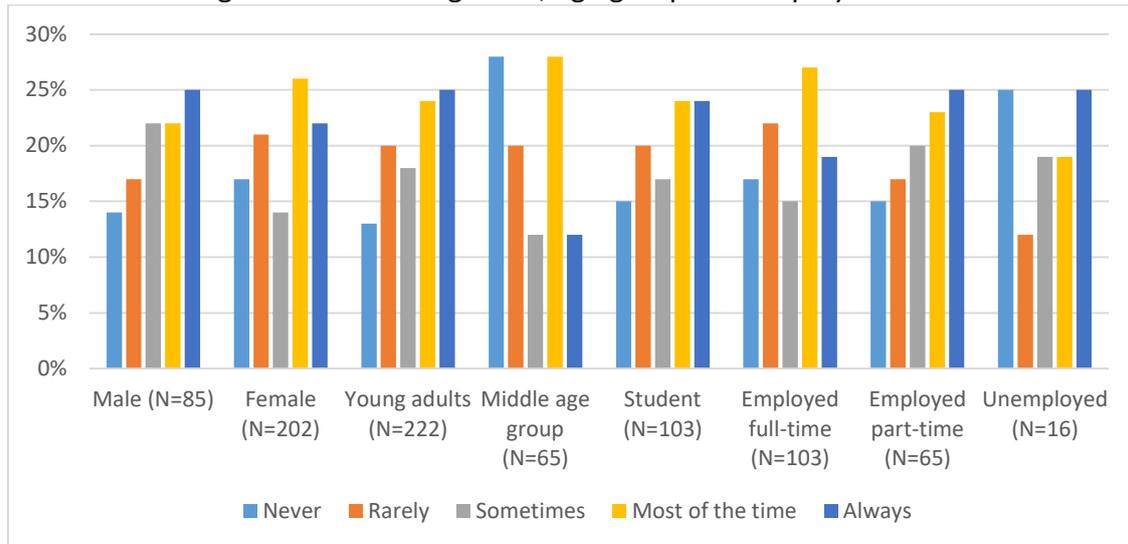
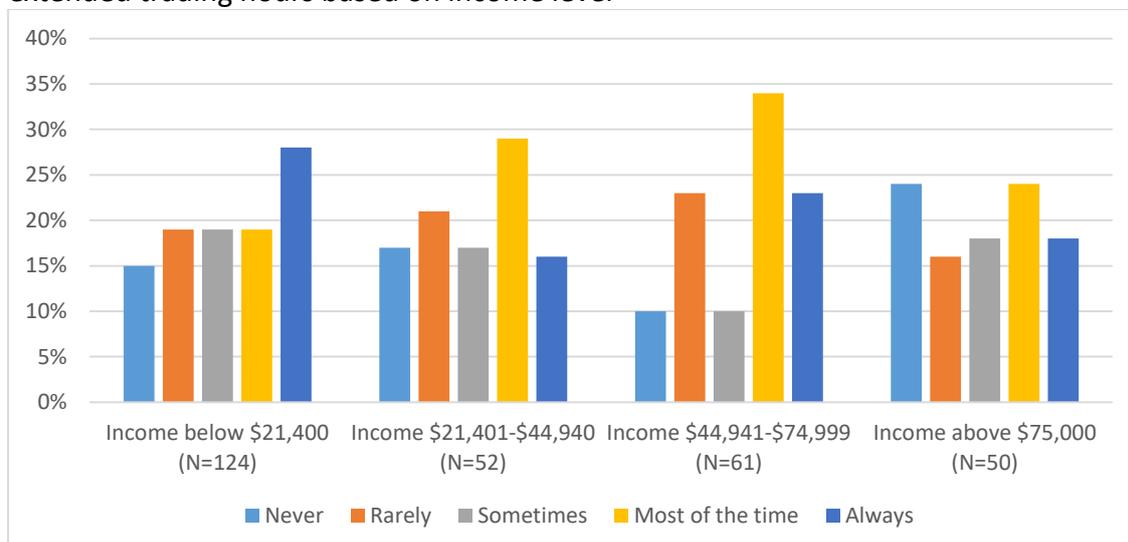


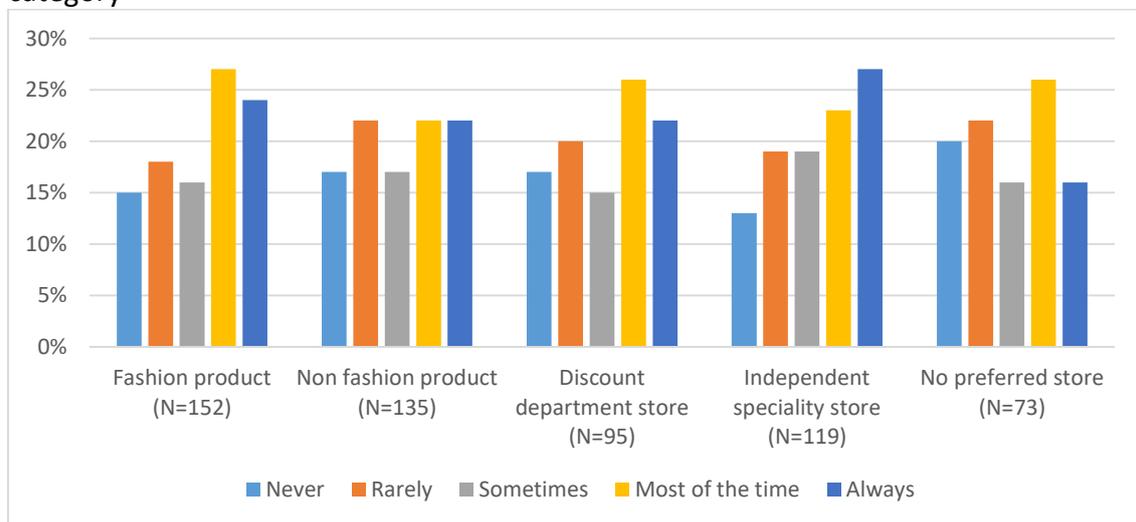
Figure 69 also demonstrates that the income group AUD\$ 21,400 p.a. and below had the highest percentage of respondents (28%) 'always' preferring to shop on days offering extended trading hours in comparison to other income groups. Those within the higher income group (AUD\$75,000 p.a. and above) had the highest percentage of respondents (24%) indicating that they 'never' prefer shopping on days having extended trading hours in comparison to other income groups. However, respondents with an income between AUD\$44,941-\$74,999 had a higher overall preference to shop on days with extended trading hours in comparison to other income groups. This income group also exhibited lower usage of online shopping when comparing and purchasing speciality products (refer Sections 5.6 and 5.7.)

Figure 69: Respondents' perceived level of shopping preference on days having extended trading hours based on income level



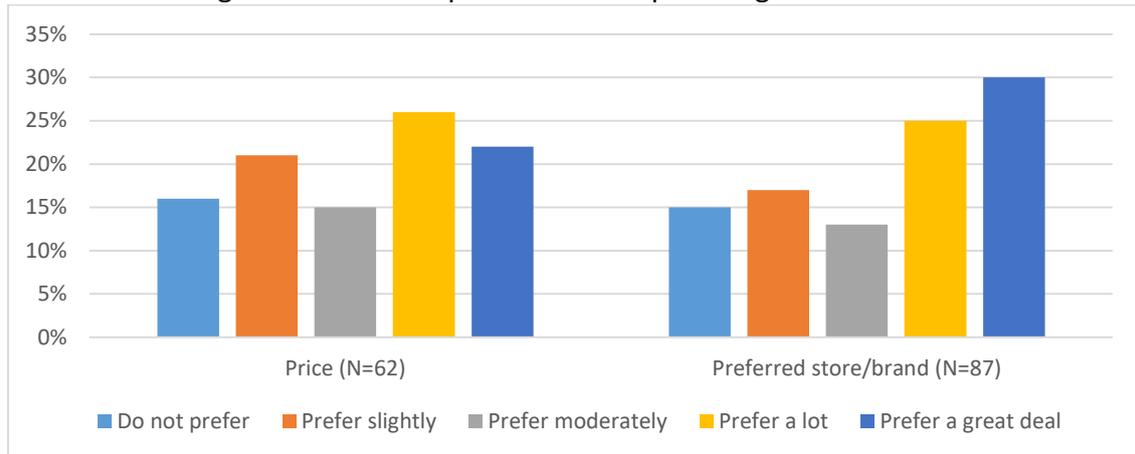
In terms of product category, Figure 70 indicates that a majority (51%) of respondents who preferred browsing fashion in-store exhibited a strong (i.e., ‘most of the time’ to ‘always’) preference for shopping on days having extended trading hours. In addition, the preference to shop on days having extended trading hours was slightly greater for respondents who preferred browsing fashion products more than non-fashion products. The preference for shopping on days having extended trading hours was greater for those respondents who sought to purchase speciality products from a department store/speciality store in comparison to those respondents who indicated they had no store preference.

Figure 70: Respondents' perceived level of shopping preference on days having extended trading hours based on respondents' preferred store type and product category



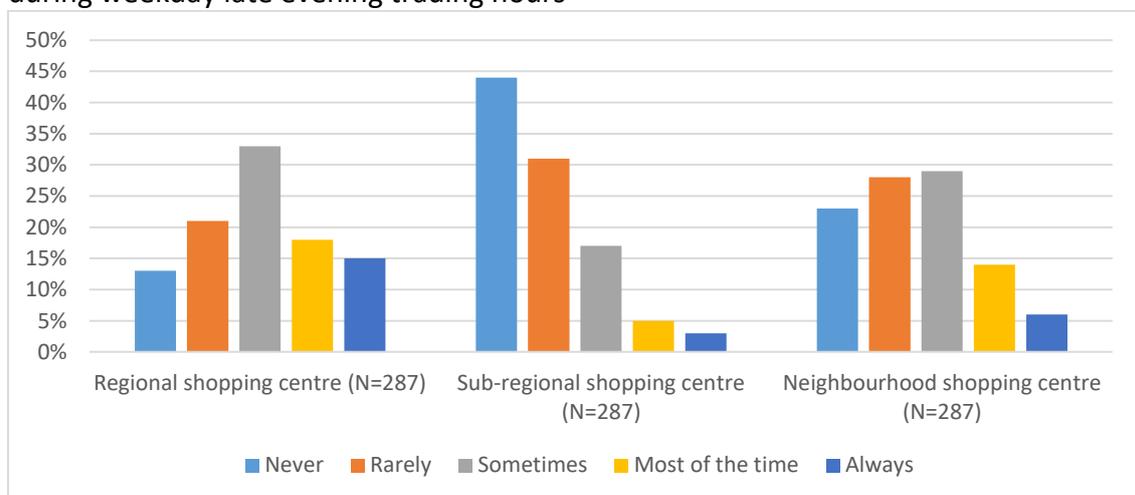
One of the main reasons for respondents with no store preference having less interest in extended trading hours may be that they are driven by the situational factors related to price, discounts and offers. Luceri and Latusi (2016) found price-conscious shoppers show less store patronage. Consequently, the current research shows that majority of those respondents who are concerned with the price of a product have low preference (i.e., ‘do not prefer’, ‘prefer slightly’ and ‘prefer moderately’) for shopping on days offering extended trading hours (see Figure 71). In contrast, 55% of respondents who showed a desire to browse in-store in the presence of their preferred store/brand indicated a high preference (i.e., ‘prefer a lot’ and ‘prefer a great deal’) for shopping on days having extended trading hours (see Figure 71).

Figure 71: Respondents' perceived level of preference for shopping on days having extended trading hours based on price and store patronage factor



However, the frequency of shopping visits to categorised shopping centres during WLE trading hours was low for the majority of the survey respondents. Figure 72 indicates that a high percentage of respondents (33%) visited the regional and neighbourhood shopping centre (29%) 'sometimes' during the late evening trading hours. Meanwhile 44% of all respondents indicated they 'never' visited the sub-regional shopping centre during the WLE trading hours. Nevertheless, the frequency of overall shopping visits during WLE trading hours within the sub-regional shopping centre trading area was not notable. This result is similar to those reported by 'The South Australian Centre for Economic Studies' commissioned by SafeWork (2013)<sup>20</sup> which noted that respondents needed greater flexibility in shopping hours despite acknowledging that the current retail trading hours were sufficient to cater for their shopping activities.

Figure 72: Respondents' frequency of shopping visits to categorised shopping centres during weekday late evening trading hours



<sup>20</sup> SafeWork monitors the public safety and work health standards in South Australia and is a business unit operating under the Attorney-General's Department.

Figure 72 above also indicates that the frequency of respondents visiting the sub-regional shopping centre during the WLE trading hours was much lower in comparison to their visits to regional and neighbourhood shopping centres.

### 5.8.1 The regional shopping centre and extended trading hours

Reimers and Clulow (2009) indicated that the extended trading hours facilitated shoppers in one-stop shopping. In other words, shoppers who intend to browse (i.e., leisure) during the WLE trading hours were likely to visit the regional shopping centre during WLE trading hours. Therefore, Table 27 below presents the ordinal regression to predict the odds of the survey respondents in the current study visiting the regional shopping centre during WLE trading hours. The analysis was based on respondents' preferred shopping destination for browsing activity.

The results from the ordinal regression revealed that respondents who preferred browsing at the regional shopping centre had the highest odds ratio in visiting the regional shopping centre during the WLE trading hours. The odds ratio for all five categories was identified as being statistically significant with a 90% confidence level and a p value < 0.01.

Table 27: Cumulative odds ratio for respondents visiting the regional shopping centre during WLE trading hours based on respondents' preferred shopping destination in browsing the speciality product

Dependent variable		Frequency of shopping visits to regional shopping centre on Thursdays during late evening trading hours
Independent variable		
	Model fitting information (chi-square)	32.61***
	Goodness of fit (Pearson Chi-square)	8.425
	Sig. (goodness of fit)	0.751
	Pseudo R-Square (Nagelkerke)	0.112

	Test of parallel lines (chi-square)	7.998		
	Sig. (test of parallel lines)	0.785		
Variables	Parameter	Expo(b)	Std. error	Wald
Respondent's preferred shopping centre for browsing specialty products	Other centres (N=19)	0.21***	0.443	12.137
	Sub-regional shopping centre (N=19)	0.20***	0.444	13.441
	Neighbourhood centre (N=27)	0.29***	0.377	10.943
	Online shopping (N=46)	0.39***	0.301	9.611
	Regional shopping centre (N=176)	--	--	--

Significance level: P<0.10\*; P<0.05\*; P<0.01\*\*

Thus, Table 27 indicates that respondents' in-store browsing behaviour is likely to have a positive influence on the frequency of shopping visits to the regional shopping centre during the WLE trading hours.

### 5.8.2 Influence of proximity of shopping centre during extended trading hours

The results from the current study partially support previous studies of Reimers and Clulow (2009). However, it somewhat contradicts Reimers and Clulow's (2009) findings related to consumers frequency of shopping visits to neighbourhood centres during extended trading hours. The frequency of respondents visiting the neighbourhood shopping centre during WLE trading hours was comparable to visits to the regional shopping centre (see Figure 72). Reimers and Clulow (2009) argued that the frequency of visits to regional and neighbourhood shopping centres would largely be determined by the time convenience factor.

Considering the time constraint aspect, survey respondents may not have chosen to browse on every occasion they visited a shopping centre. Therefore, they may also prefer to shop at the nearest shopping centre during the WLE trading hours. An ordinal regression was analysed to investigate the importance of proximity of the shopping

centre during WLE trading hours. Table 28 presents the results of the ordinal regression based on the type of shopping centre located closest to respondents' residences.

The results from the ordinal regression revealed that the odd ratio for visiting the neighbourhood shopping centre during the WLE trading hours was highest for those respondents who resided near the centre (odds ratio=3.19). The odds ratio was identified as being statistically significant with a 90% confidence level and p value < 0.01.

Table 28: Cumulative odds ratio for respondents visiting the neighbourhood during WLE trading hours, based on the type of shopping centre located closest to respondents' residences

Dependent variable		Frequency of shopping visits to neighbourhood shopping centre on Thursdays during late evening trading hours
Independent variable		
	Model fitting information (chi-square)	39.92***
	Goodness of fit (Pearson chi-square)	6.049
	Sig. (goodness of fit)	0.418
	Pseudo R-Square (Nagelkerke)	0.137

	Test of parallel lines (chi-square)	6.073		
	Sig. (test of parallel lines)	0.415		
Variables	Parameter	Expo(b)	Std. error	Wald
Respondents' nearest shopping centre	Neighbourhood shopping centre (N=102)	3.19***	0.245	22.39
	Sub-regional shopping centre (N=52)	0.51***	0.301	4.98
	Regional shopping centre (N=133)	--	--	--

Significance level: P<0.10\*; P<0.05\*\*, P<0.01\*\*\*

Table 29 also presents the odds ratio for respondents visiting the sub-regional shopping centre during WLE trading hours. The odds ratio was highest for those respondents who resided near the sub-regional shopping centre (odds ratio=5.27). The odds ratio was identified as being statistically significant with a 90% confidence level and p value < 0.01.

Table 29: Cumulative odds ratio for respondents visiting the sub-regional shopping centres during WLE trading hours, based on the type of shopping centre located closest to respondents' residences

Independent variable		Dependent variable		
		Frequency of shopping visits to sub-regional shopping centre on Thursdays during late evening trading hours		
	Model fitting information (chi-square)	29.40***		
	Goodness of fit (Pearson chi-square)	5.206		
	Sig. (goodness of fit)	0.518		
	Pseudo R-Square (Nagelkerke)	0.106		
	Test of parallel lines (chi-square)	5.211		
	Sig. (test of parallel lines)	0.517		
Variables	Parameter	Expo(b)	Std. error	Wald
Respondents' nearest shopping	Neighbourhood shopping centre (N=102)	1.43	0.248	2.122

centre	Sub-regional shopping centre (N=52)	5.27***	0.312	28.44
	Regional shopping centre (N=133)	--	--	--

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

Thus, consumers may choose to shop at a sub-regional or neighbourhood shopping centre during WLE trading hours because of its proximity (i.e., located close to shoppers' residences). However, the proximity factor was identified as being less important in influencing the frequency of shopping visits to a regional shopping centre during WLE trading hours. The odds of respondents visiting the regional shopping centre based on the proximity factor were not able to be computed, as the data did not satisfy all the assumptions in carrying out the ordinal regression analysis. One possible explanation for this result is that shoppers are attracted to regional shopping centres for leisurely shopping experiences as well as goal-oriented shopping activities. The provision for leisurely shopping activities at regional shopping centres attracts a large number of customers beyond their actual trading areas. In other words, shoppers do not put much emphasis on the element of proximity when visiting regional shopping centres. This result also implies that consumers would prefer to shop at the regional shopping centre when they are less time constrained. Therefore, an ordinal regression was employed to estimate the odds of visiting a regional shopping centre during WLE trading hours based on respondents' income levels. Anecdotally, consumers with higher income levels are generally time poor. Table 30 presents the results of the ordinal regression.

The results from the ordinal regression revealed that the odds ratio for visiting the regional shopping centre during the WLE trading hours declined with the rise in respondents' income levels. The odds of the lowest income group visiting the regional shopping centre were 2.5 times greater than the highest income group. The odds ratio was identified to be statistically significant with a 90% confidence level and p value < 0.01.

Table 30: Cumulative odds ratio for respondents visiting the regional shopping centre during WLE trading hours based on their income level

Dependent variable		Frequency of shopping Visits to regional shopping centre on Thursdays during late evening trading hours		
Independent variable				
	Model fitting information (chi-square)	10.51**		
	Goodness of fit (Pearson chi-square)	12.099		
	Sig. (goodness of fit)	0.208		
	Pseudo R-Square (Nagelkerke)	0.038		
	Test of parallel lines (chi-square)	12.220		
	Sig. (test of parallel lines)	0.201		
Variables	Parameter	Expo(b)	Std. error	Wald
Respondents' income level	AUD\$ below 21,400 p.a. (N=124)	2.57***	0.304	9.643
	AUD\$ 21,401 - \$44,940 (N=52)	2.30**	0.357	5.458
	AUD\$ 44,941 - \$74,999 (N=61)	2.21**	0.344	5.320
	AUD\$ 75,000 and above (N=50)	--	--	--

Significance level: P<0.10\*; P<0.05\*\*; P<0.01\*\*\*

Thus, the result in Table 30 reveal that low-income consumers are the predominant income group visiting regional shopping centres frequently during WLE trading hours.

Section 5.8 identified the sub-regional shopping centre as the least preferred shopping destination during the WLE trading hours in comparison to regional and neighbourhood shopping centres. In addition, the probability of consumers choosing a

regional shopping centre during WLE trading hours was high when they were not experiencing time constraints for their shopping activities.

## **5.9 Conclusion**

Chapter 5 identified Google/online search as the most preferred source of product information for the majority of respondents, irrespective of their gender, browsing behaviour and product categories. However, respondents also liked browsing at shopping centres. Female respondents tended to spend more time browsing products than male shoppers. Respondents who preferred browsing fashion products in-store spent more time in comparison to respondents who browsed non-fashion products. The research also found that, time spent by respondents browsing in-store has no significant effect on the visibility of the independent speciality stores. The results indicated that respondents' non-browsing behaviour was probably the main factor affecting the visibility of the independent speciality stores, which was affected the most at the sub-regional shopping centre.

A majority of respondents indicated that the regional shopping centre was their preferred shopping destination, in terms of browsing speciality products of specific interest to them. Ease of access and availability of a variety of products were identified as the key variables considered by respondents when determining their choice of shopping centre within the sub-regional shopping centre trading area. The current study found that the availability of a variety of products offset the limitation of unavailability of shoppers' preferred store/brand when patronising the regional shopping centre. However, this process affected the sub-regional shopping centre the most, as respondents preferred to visit the regional shopping centre, especially during the extended trading hours.

Online shopping did not appear to have a negative influence on in-store browsing behaviour. Instead, respondents who preferred browsing at online shopping sites exhibited longer sessions of in-store browsing when visiting the shopping centre with a purchase objective. Furthermore, the current study also found respondents with a store preference (i.e., either discount department/speciality store) had a greater level of trust in relation to online transactions and online purchases in comparison to respondents with no store preference.

The shorter trading hours of speciality stores were seen to cause shopping inconvenience for a majority of respondents. Furthermore, the weekday late evening trading hours were preferred mainly by young adult respondents who chose to shop at independent speciality stores. However, online shopping for traditional retailers (i.e., retailers efficient only with face-to-face interaction), especially the independent speciality retailers, was not found to offset this limitation of shorter trading hours. The insignificance of online shopping for independent speciality retailers may be influenced by consumers' perceived risk (i.e., uncertainty-based/opportunity-based risk) carried by the speciality products. Nevertheless, respondents with the highest income level in this study showed an inclination to increase their online purchases of speciality products (i.e., respondents most preferred speciality product for in-store browsing) over the previous two year period. The higher income group also occasionally relied on online shopping due to the limited trading hours of the shopping centres. Thus, the results in this study suggest that online shopping has the opportunity to reinforce time convenience shopping activity for respondents with higher income levels, but does not undermine their interest in visiting department and speciality stores.

Low-income consumers' choices and patronage of independent speciality stores shows satisfaction in their shopping decisions and being more likely to browse during WLE trading hours. Thus, shopping at independent speciality stores may facilitate social cognition for low-income consumers who are likely to benefit from extended trading hours. However, lower-income earners do not have the capacity and inclination to want to buy goods from speciality retailers when shopping abstractedly, so the cost of extending trading hours could be higher than profits earned during extended trading hours for independent speciality stores. Chapter 6 further discusses the findings of this study and the significance of this research in contributing to the existing body of knowledge.

## **Chapter 6: Discussion and Conclusion**

### 6.1 Introduction

Shopping centres play a major role in the Australian retail environment, providing amongst other things, the infrastructure and opportunity for the promotion and sale of products and services by small and medium enterprise (SME) retailers. The regional, sub-regional and neighbourhood shopping centres, the focus of this thesis, dominate the Australian shopping centre market providing space for more than 80% of SME retailers (URBIS, 2015).

Competition from e-commerce is putting pressure on shopping centres to reconsider the aspect of restricted trading hours and increase the frequency of extended trading hours (The Productivity Commission, November 2011). The impact of e-commerce on shopping centres is not only confined to sales. Consumers' may browse the product online but purchase in a physical store because of lack of trust in online payments and privacy (Kim, 2014). Hence, e-commerce could also influence consumers' choice of shopping centre and in-store browsing behaviour. In other words, e-commerce may be useful for consumers' to determine their purchases and shopping destination when they are time-constrained. However, the impact of e-commerce on consumers' shopping centre patronage and in-store browsing behaviour on days offering extended trading hours is not yet established.

Additionally, few researchers have considered the importance of consumer in-store browsing behaviour as it relates to the survival of independent SME retailers within shopping centres (Jarboe and McDaniel, 1987; Xia, 2010). At the same time, previous shopping centre models are being called into question as a result of changes in the retail environment. The Huff Gravity Model is one of the shopping centre models commonly used in predicting consumers' shopping centre patronage (Wee and Pearce, 2015), but it does not take into account the influence of online shopping. The Technology Acceptance Model was employed along with the Huff Gravity model in the current study to understand the impact of e-commerce on shopping centres during extended retail trading hours. The Technology Acceptance Model (TAM) is another model that has been widely used to predict consumer adoption/usage of online shopping (Hsiao and Yang, 2011). Although, TAM has never been used to determine

the effect of online shopping on shopping centre patronage and in-store browsing behaviour. To address these knowledge gaps, the current study sought to investigate the following research question: 'What are the socio-economic impacts of e-commerce on speciality stores in categorised shopping centres?' Specifically, the research objectives were to:

- i. Investigate the effect of restricted retail trading hours on consumers' in-store browsing behaviour within shopping centres.
- ii. Investigate the probability of using e-commerce due to shopping inconvenience caused by restricted retail trading hours.
- iii. Investigate the interaction of Huff's Gravity Model and the Technology Acceptance Model (TAM) in predicting consumers' choice of shopping centre and in-store browsing behaviour during extended retail trading hours.

Chapters 4 and 5 presented the qualitative and quantitative findings. Chapter 4 explored the relationship between consumer in-store browsing behaviour and the performance of independent speciality stores in categorised shopping centres from the perspective of both consumers and shopping centre management. The findings highlighted that shopping centre orientation, availability of a variety of products and/or the presence of consumers' preferred brand/store are prerequisites for consumers to engage in browsing activity. The size of the shopping centre and its orientation (i.e., fashion, groceries etc.) was found to influence the visibility of independent speciality stores. Additionally, restricted trading hours were found to negatively affect consumers' in-store browsing behaviour. Interestingly, frequent usage of online shopping was perceived to have low effect on consumers' in-store browsing behaviour especially for speciality products.

The findings also identified inefficiency in customer assistance experienced by a consumer when shopping with an independent SME speciality retailer on an online platform. Various strategies to capture the advantages and mitigate the disadvantages of online shopping by independent SME retailers and shopping centres were outlined by the respondents.

Chapter 5 examined the validity and reliability of the constructs that are used in the conceptual framework of this research. The constructs were derived from the

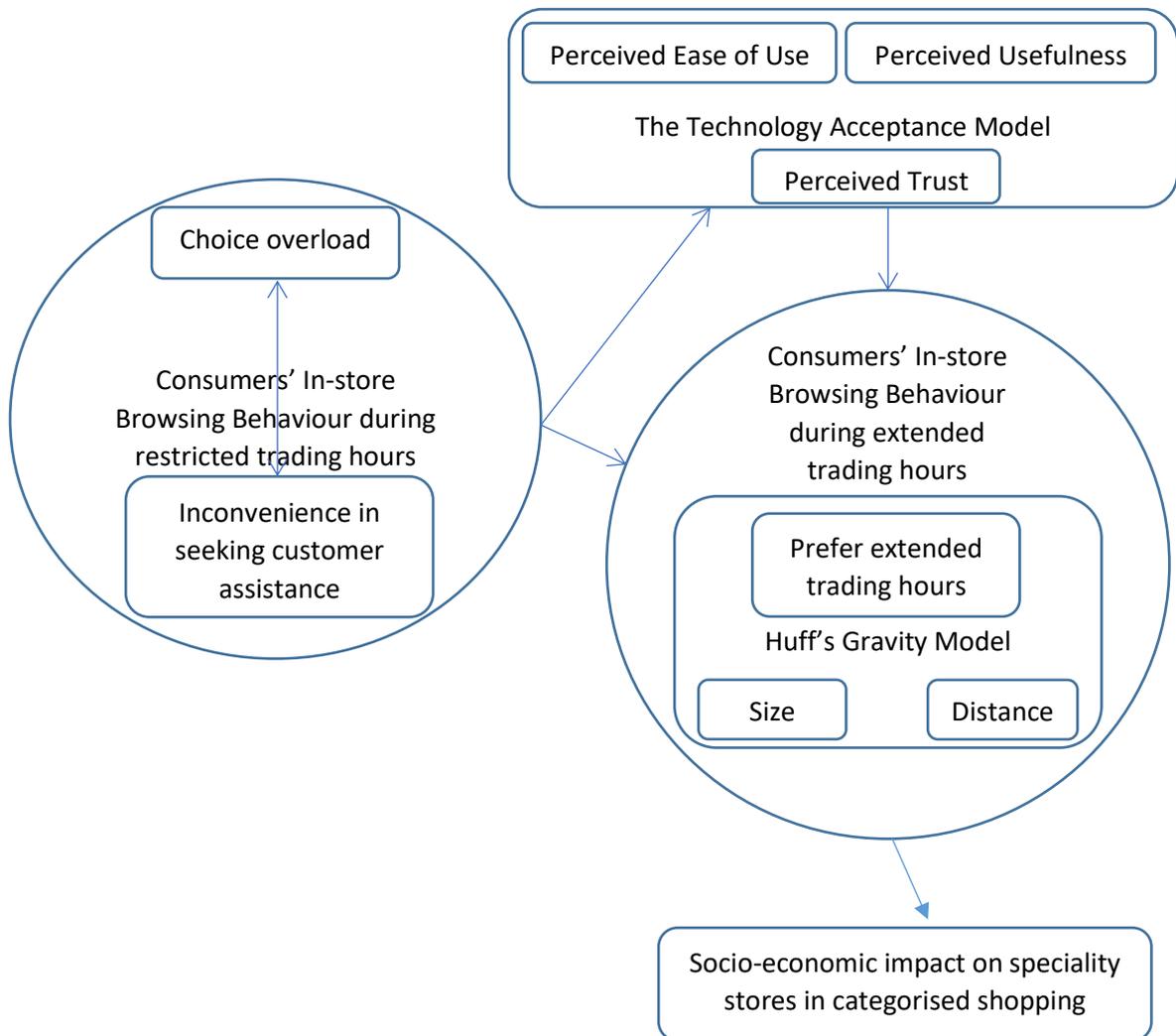
literature review in Chapter 2 and were analysed with Confirmatory Factor Analysis (CFA). Additionally, descriptive statistics and ordinal logistic regression were employed to further investigate and elucidate the CFA results. The findings do not support the argument presented throughout the thesis that the increased frequency of extended retail trading hours will enhance growth opportunity for independent SME speciality retailers. Instead, this thesis found the SME speciality retailers were likely to incur high cost in operating their business with increases in the frequency of extended retail trading hours.

This chapter synthesises and discusses the key findings in relation to the conceptual framework and research objectives as well as their implications for shopping centres and independent SME speciality retailers in terms of leasing. Chapter 6 sets out the contribution this thesis makes to the existing body of knowledge and outlines future research opportunities.

## 6.2 Applicability of conceptual framework

A conceptual framework was developed to investigate the effect of e-commerce on consumers' in-store browsing behaviour and shopping centre patronage during extended trading hours and the key factors and their interrelationship within the literature (see Chapter 2, Section 2.5). This conceptual framework guides discussion of the key findings and conclusions derived from this research.

Figure 73: Conceptual Framework



### 6.2.1 Delineating consumers' shopping centre patronage using Huff's Gravity Model

There is evidence to support the theory that the Huff Gravity Model can be employed in identifying consumers' shopping centre patronage during the weekday late evening (WLE) trading hours. However, this research added an additional factor to increase the accuracy of the model. Consumers' 'perceived level of shopping preference on days offering extended trading hours' was combined with the determinants of the Huff Gravity Model, that is 'size of' and 'distance to' shopping centre. With this additional factor, the current research found that the Huff Gravity Model derived a similar outcome to that suggested by previous studies by Baker and Wood (2010) and Reimers and Clulow (2009), that consumers usually prefer to shop at larger-sized shopping

centres (i.e., regional shopping centres) during extended trading hours. This additional factor was originally identified in a SafeWork (2013) report and then tested in the current research. According to the SafeWork (2013) report, those consumers who usually preferred to shop during public holidays had the highest preference for shopping during extended trading hours. The current research also found the probability of visiting a regional shopping centre during WLE trading hours was highest for those respondents who had the highest frequency of recreational shopping visits in a week. This was substantiated by ordinal regression analysis. The findings in this research and the report of SafeWork (2013) supports the argument made in this thesis that consumers who spend their leisure activity shopping are the ones who prefer shopping on days with extended trading hours. Hence, in the current study it was evident that consumers who shopped during WLE trading hours at the regional shopping centre considered ease of access (i.e., distance and parking facilities) to be less important.

Besides leisurely experiences, this thesis provides evidence that the inconvenience in seeking customer assistance during restricted trading hours as one of the main reasons for consumers to prefer shopping during extended trading hours. Findings indicate that regional shopping centre is more favourable in seeking customer assistance. One of the main reasons is that the opportunity to browse in numerous stores in one location may help consumers to acquire the right product and reduce the possibility of dissatisfaction in their purchase decision (Iyengar and Kamenica, 2010).

The focus upon shopping inconvenience originated from the research by Goodman and Remaud (2015) who established a causal relationship between customer assistance and consumers' preference for independent speciality stores. Ordinal regression analysis in the current research provided further evidence of the causal relationship. The statistical test indicated that respondents who preferred to shop at an independent speciality store had the highest probability of visiting a regional shopping centre during WLE trading hours. This thesis confirmed the causal relationship through Confirmatory Factor Analysis (CFA) and ordinal logistic regression.

Considering the causal relationship between customer assistance and preference for speciality stores, the findings in this research indicate that the overall demand for

shopping at independent speciality stores is low and inconsistent during WLE trading hours. The descriptive statistics showed that 65% of respondents seek customer assistance occasionally when shopping for speciality products. Thus, these findings support the report by SafeWork (2013) and the findings by Wenzel (2011), who asserted that extended trading hours were beneficial for consumers, but not so much for most independent SME speciality retailers because their demand was usually low and inconsistent. Despite a need for occasional customer service, the added cost to independent SME retailers was high.

The other factor this thesis investigated was choice overload. However, choice overload was found to have no significant influence on consumers' desire to shop during WLE trading hours. This thesis provides evidence that income contributed to major differences in consumers' shopping preference during WLE trading hours. This result was also substantiated by ordinal regression analysis that found the odds of visiting the regional shopping centre during WLE trading hours declined with the increase in respondents' income levels. One possible explanation would be that high-income consumers presumably do not have time to visit shopping centres as they are working longer hours. Besides, high-income consumers have the capacity to buy what they want when they want. For example, high-income shoppers may use online shopping as it facilitates time efficiency and convenience of 24 hours shopping availability (Karayanni, 2003). In the current study, there is evidence that high-income consumers increased their frequency of online purchases for their most preferred speciality product over a two-year period. Hence, the findings suggest that the purchase decision for high-income groups may be less affected by time pressure (i.e., restricted trading hours of the shopping centres) as they have the capability and confidence to purchase online. Consequently, choice overload was less likely to be the main reason for these consumers to visit regional shopping centres during WLE trading hours. However, the findings in this thesis are limited to products that the consumers have high awareness or knowledge of. Therefore, it is still possible that high-income consumers may choose to shop on days offering extended trading hours for products that they require customer assistance.

The research found that extended trading hours were relevant for lower-income consumers. Within an Australian context this may be related to social welfare benefits

or other government subsidies being paid to low-income individuals happening to fall on WLE trading days. Thus, availability of income may be a factor in driving lower-income consumers to the shops on this day.

Additionally, these lower-income consumers were more likely to patronise a particular type of store (i.e., either discount department/speciality store) in comparison to higher-income groups when purchasing their preferred speciality products. Although, descriptive statistics clarified that the store patronage was mostly for independent speciality stores. Despite the preference for independent speciality stores by lower-income groups, this thesis highlights the possibility of their experiencing choice overload due to restricted trading hours was low. This may be because consumers who browsed/shop with abstract mindset and patronise their preferred store has been identified as experiencing less choice overload by previous studies (Luceri and Latsui, 2012; Park et al., 2010). There is evidence that the lower-income consumers in the current study were more likely to engage in browsing various stores for leisure in comparison to higher income groups. Hence, choice overload is less likely to be the main reason why lower-income consumers visit the regional shopping centre during WLE trading hours.

#### 6.2.2 Delineating the usefulness of e-commerce using the Technology Acceptance Model

This research employed the Technology Acceptance Model (TAM) to understand consumers' use of e-commerce. In this research, the investigation of consumers' perceived usefulness of e-commerce was in acquiring product information online and visiting a shopping centre with pre-determined purchase objective in order to obviate the need for customer assistance and reduce choice overload (i.e., increasing visibility of independent speciality stores). Previous studies by Scheibehenne et al. (2010) suggested that a pre-determined purchase objective could reduce the occurrence of choice overload during time-constrained shopping activity within a shopping centre.

This thesis found a positive statistically significant relationship between pre-determined purchase objective and online product comparison. In other words, consumers who frequently compared products online were more likely to visit shopping centre with pre-determined purchase objective. However, the probability of using e-commerce by consumers' to obviate the need for customer assistance in store

and choice overload was low, especially for those consumers who preferred to shop at a speciality store.

This research found that most respondents preferred to seek customer assistance in a physical store rather than through online platforms, especially when they intend to purchase the product from an independent SME speciality retailer. One of the possible explanations (perceived by participants in the focus groups) was that the stock carried by independent SME speciality retailers was small and changed rapidly. Furthermore, the participants also indicated that non-repetitive purchases related to speciality products, usually for one-time use, influenced them to seek customer assistance in-store. Belleau, Summers, Xu, and Pinel (2007) also came to a similar conclusion, that shoppers browsing in physical store had a more positive response to recently launched products in the market than shoppers browsing online. Thus, the current research indicates that the independent speciality stores in shopping centres will benefit from this 'non-repetitive purchase decision' and the 'unfamiliarity of new products'.

Additionally, the majority of respondents perceived that independent speciality retailers were not able to establish effective communication through online platforms, compared with large purely online retailers such as eBay and Amazon. Those consumers who intend to shop/purchase online usually choose a large purely online retailer because of their capacity, including effective online communication and the ability to track delivery of the online purchase. Thus, perceived poor online communication is a major factor that is negatively affecting consumers' confidence when shopping/browsing online at an independent SME speciality retailer. Hence, the low frequency of online product comparison for those consumers who preferred to shop at independent speciality stores suggests low perceived ease of use and trust of e-commerce.

This thesis also provides evidence that e-commerce was not necessarily helpful for consumers in general in reducing the possibility of choice overload caused by time-constraint shopping activity. This thesis found that consumers' online product comparisons were affected by the product category. The descriptive statistics indicated that 37% of respondents who intend to purchase fashion products in-store compared frequently online, while, 50% of respondents frequently browsed online for

non-fashion products. One possible explanation for the consumer shopping fashion product category to have low frequency of online product comparison is likely to be influenced by the uncertainty risk. Additionally, the purchase decision for fashion products is usually driven by an individual's emotions. Therefore, the lack of sensory experience might make it even harder for consumers shopping for fashion products online to make a sound purchase decision. This finding is in line with that of Seock and Bailey (2008), who found that consumers abandon online shopping if they perceive it is going to consume more time and effort to find a suitable product. In this context, the current study indicates that those consumers who intend to purchase fashion products at a physical store may not choose to compare products online. In other words, online shopping is likely to have less influence on the frequency of consumer shopping centre visits with a pre-determined purchase objective specifically for fashion products.

This thesis concludes that e-commerce may not assist consumers to reduce the inconvenience of browsing and/or shopping speciality products especially at regional shopping centres during restricted trading hours.

### 6.2.3 Interaction between the Technology Acceptance Model (TAM) and the Huff Gravity Model

Research Objective 3 was to investigate the interaction between the Huff Gravity Model and the Technology Acceptance Model (TAM) in order to establish the impact of e-commerce on shopping centre patronage during WLE trading hours. Confirmatory Factor Analysis provided the evidence that the two models successfully converge including the theoretical concept/idea of consumer browsing behaviour, choice overload and customer assistance during restricted retail trading hours.

However, the interaction between the TAM and Huff's Gravity Model found that the effect of online browsing (i.e., comparing speciality products online only) was negligible in terms of influencing consumers' shopping centre patronage during WLE trading hours. Confirmatory Factor Analysis (CFA) substantiated this result. This result parallels the findings of Baker (2006) who found the use of e-commerce has low influence on the surrounding precinct of the shopping centre nearest to consumers' location.

Additionally, this thesis also found that the online product comparison prior to purchasing in-store did not reduce consumers' in-store browsing time when shopping for speciality products. Instead, the in-store browsing time was similar between respondents who preferred to browse at the regional shopping centre and respondents who preferred browsing online. These respondents indicated that they spent at least 30 minutes browsing a speciality product when they intended to make a definite purchase. This was substantiated by the Kruskal-Wallis test, which is a non-parametric statistical analysis that is used for non-normal continuous data (e.g., time) (Nicholson, 2014).

In the current study, the commonality between respondents who preferred browsing at a regional shopping centre and online was 'availability of variety of products'. In other words, consumers who preferred shopping in a regional shopping centre and online seek a wide product choice prior to purchasing the speciality product. These findings imply that those consumers who usually prefer to browse and/or purchase online may choose larger-sized shopping centres if they intend to purchase the speciality product in-store, a result corroborated by the focus group findings. To some extent, preference for a wide product choice explains the reason why frequent online shoppers spend longer period browsing when shopping in a physical store. Beside the wide product choice, speciality products are usually one-time purchases. Hence, both infrequent and frequent online shoppers may prefer to spend time shopping in a physical store, as they have the advantage of bargaining and gaining sensory gratification (i.e., touch and feel) which is not possible when shopping online. In this context, this finding diverges from the previous research by Weltevreden (2007) who found frequent online shoppers spend less time browsing when shopping in-store.

Yet, this research does not completely rule out the effect of online product comparison on shopping centre patronage during WLE trading hours. Findings showed that price-conscious respondents had low preference for shopping on days having extended trading hours. This finding indicates that price-conscious shoppers may prefer to shop during extended trading hours when there are ongoing sales and discounts; otherwise, their shopping frequency is likely to be inconsistent. Furthermore, ordinal regression analysis substantiated that those consumers who preferred to browse online had the highest probability of comparing products prior to purchasing in-store, and visiting

shopping centres with pre-determined purchase objectives more often. Previous research by Luceri and Latusi (2016) also found that price-conscious shoppers tend to have low store patronage. Hence, there is a possibility that online shopping can influence price-conscious shoppers to determine their shopping trip/destination for speciality products based on the discounts and sales promotions available in the market. However, in the current survey sample 22% of all respondents were price-conscious when purchasing speciality products. Additionally only 44% of all respondents compared speciality product online frequently. These factors may limit the effect of online shopping on shopping centre patronage during the late evening trading hours within this study.

#### 6.2.4 Socio-economic impact on independent speciality stores in categorised shopping centres

This research found consumers' in-store browsing behaviour was an important factor influencing frequency of shopping visits to a regional shopping centre, whilst proximity influences the frequency of visits to sub-regional and neighbourhood shopping centres. These findings were substantiated by the ordinal regression analysis. The findings align with those of Baker and Wood (2010) and Baker (2002), who asserted that the restrictions in trading hours supported the smaller shopping centres because it disperses the frequency of shopping visits. In other words, restricted trading hours can reinforce the importance of proximity to the shopping centre and reduce the effect of the size of the shopping centre. Furthermore, this thesis found the probability of consumers' using e-commerce to reduce shopping inconvenience during restricted retail trading hours was low. Therefore, this section will discuss the implications of deregulation of trading hours on independent speciality stores in categorised shopping centres.

The restricted retail trading hours of the shopping centres are less likely to be advantageous for independent SME speciality retailers irrespective of the type/category of shopping centre in which they are located. Restricted trading hours constrain shoppers' in-store browsing activity. This negative effect on consumers' in-store browsing activity usually favours the anchor tenants, such as the discount department stores. For example, Goodman and Malkoc (2012) found that shoppers

who wish to purchase a product immediately emphasised the larger-sized stores, while a smaller store was preferred when consumers were less time pressured. Once shoppers are at the shopping centre, the proximity factor becomes irrelevant but the effect of the size of the store is pertinent. The current research did not find a major difference in the in-store browsing time spent between shoppers who preferred shopping at discount department stores and those who shopped at independent speciality stores and who were goal-oriented (i.e., with the intention to purchase). However, there was a statistically significant difference when a consumer visited a shopping centre for a leisurely shopping experience, especially for female respondents. Female shoppers who preferred to shop at independent speciality stores spent more time (approximately 45 minutes) in comparison to female shoppers who preferred department stores (approximately 20 minutes). Approximately 70% of Australian shopping centre customers are female (Bailey, 2013), thus there is potential for independent speciality stores to thrive, given there is provision for leisurely shopping activity within the shopping centre.

The weekly recreational shopping visit for half of the female respondents was less than once a week. This low frequency of recreational shopping visits will have a negative economic impact on independent speciality stores. Furthermore, as this research has highlighted, many shoppers prefer to visit the larger-sized shopping centres for recreational shopping activities, creating further negative impacts for independent speciality stores in smaller shopping centres.

However, the Huff Gravity Model may have identified consumers' shopping centre patronage during WLE trading hours but it does not reveal if consumers are engaged in leisure shopping activity (i.e., browsing in-stores). This thesis provide evidence that consumers visiting regional shopping centre during WLE trading hours were mostly goal-oriented and they generally do not engage in browsing in-stores for leisure. The main reason identified in this research for consumers to prefer shopping during WLE trading hours was to make time for social activities with friends and/or family on weekends. These findings suggest that consumers who frequently visited a shopping centre for leisurely shopping experiences may patronise the regional shopping centre during WLE trading hours but they may not necessarily engaged in leisurely shopping activity. Therefore, these findings support the argument made in this thesis that the

Huff Gravity Model needs to integrate the consumer in-store browsing behaviour factor in order to enhance its accuracy in determining the performance of the speciality stores.

The research also revealed that non-browsing behaviour affected the probability of shoppers making an impulse purchase during recreational shopping visits. For example, shoppers engage in social activities (i.e., spending time with friends) instead of browsing products in-store during recreational shopping visits, thus not providing the opportunity for impulse purchases. The cultural dimension of the retail trade area of the case study also influenced the frequency of impulse purchase. In the Asian culture, for example in Malaysia, shoppers' impulse purchase is influenced by the opinion of their family members. In contrast, in western countries, for example in Australia, there is very much an individualistic culture, and the shoppers' impulse purchase is influenced by one's own shopping experience (Lee and Kacen, 2008). Therefore, the fashion orientation of the shopping centre is an important social setting that influences Australian shoppers in attaining pleasurable shopping experiences and higher frequency of impulse purchases. Furthermore, a previous study by Park et al. (2010) indicated that impulse purchasing was higher for those shoppers who had strong store patronage. However, the current study found that the frequency of impulse purchase was high, despite half of respondents browsing without their preferred store/brand. This finding might be related to the high proportion of respondents and residents of Asian cultural backgrounds in the retail trade area of the case study. The trade area in the current case study comprised 31% Asian and 54% Australasian resident (Australian Bureau of Statistics, 2016b). Khan, Hui, Chen, and Hoe (2015) dismissed the relevance of the social effect (i.e., fashion orientation) in influencing the frequency of impulse purchase for Malaysian shoppers. Thus, the presence of a large international population within the catchment area, especially of Asian ethnicity, is one reason for higher impulse purchases, despite the absence of preferred store/brand.

This thesis concludes that the negative impact of deregulation of trading hours would be highest for sub-regional shopping centres. Descriptive statistics further elucidated the results of the ordinal regression analysis and indicated that respondents' frequency of shopping visits during the extended trading hours was similar for both

regional and neighbourhood shopping centres. However, respondents' frequency of shopping visits at sub-regional shopping centre was the lowest. These findings indicate firstly, that the sub-regional shopping centres are not able to compete with regional shopping centres in terms of leisurely shopping experiences. Therefore, consumers who want a 'one-stop shop' will choose a regional shopping centre more often. Secondly, consumers are more likely to favour the neighbourhood shopping centre if they consider proximity as the main determinant for their shopping activity. Neighbourhood shopping centres are usually located in closer proximity to consumers' residences than regional or sub-regional shopping centres. Hence, to some extent the sub-regional shopping centre lacks competitiveness in 'attractiveness for leisure activities or one-stop shopping' and 'proximity'.

### 6.3 Strengths and weaknesses of the model

The aim of this thesis was to investigate the impact of e-commerce on speciality stores in categorised shopping centres. In order to delineate the effect of online shopping on speciality stores, this research was specifically focused on consumers' in-store browsing behaviour and shopping centre patronage during WLE trading hours. The main reason for focusing on WLE trading hours was due to the lack of congruity between the concept of urban planners and researchers of consumer behaviour in regard to SME performance during extended trading hours, as discussed in-depth in Chapter 2. A conceptual framework, as depicted in Figures 2 and 73, developed through the literature review provided an understanding of the socio-economic impact on speciality stores in categorised shopping centres as the result of consumer in-store browsing behaviour and their shopping centre patronage during WLE trading hours. This framework was successful in understanding the shopping centre patronage and consumers' in-store browsing behaviour during WLE trading hours. The conceptual framework also demonstrated its potential in understanding consumers' demand for shopping at independent speciality stores during extended trading hours through 'consumers' frequency of 'customer assistance required'. The conceptual framework was well defined by the universal dimensions of social cognition. Hence, social cognition was influential on consumers purchase decision and choice of store/retailers.

The conceptual framework is suitable for a mixed method research approach. The use of both quantitative and qualitative methods helped to gain in-depth understanding of the phenomenon. Mixed methods are advantageous, especially when conducting a survey within a shopping centre, which is difficult as consumers are usually time poor and have little desire to answer lengthy/extensive survey questions. This thesis found both qualitative and quantitative data generated similar conclusions and reinforced findings of the phenomenon. However, the conceptual framework can also be carried out by utilising a single method (either qualitative or quantitative).

The conceptual framework assisted the researcher to understand the significance of trading hours and the relationship the size of the shopping centre had in the success of independent SME speciality retailers' physical presence. Specifically, the role of online shopping and restricted retail trading hours, consumer in-store browsing behaviour and choice overload affected shopping centre patronage and demand for independent speciality stores during WLE trading hours. While this provided some insights into consumers' shopping behaviour during extended trading hours, the range of socio-economic impacts is limited to the effect of the trading hours of the store and/or the shopping centre.

This thesis also found other weaknesses related to the conceptual framework. Firstly, the weakness of investigating this model by social cognition is that the potential implications of the results will be limited to certain product categories and retailers. For instance, this thesis found social cognition was mostly associated with fashion product categories and electronics & appliances. Social cognition may not capture consumers' shopping behaviour for other product categories. Secondly, this framework predicts the probability of a consumer visiting speciality stores within a shopping centre during extended trading hours, but it does not predict the likelihood of consumers making a purchase. Hence, the potential implications of the results on sales volume are limited.

#### 6.4 Implications of this research on independent SME retailers and shopping centres

A number of key implications for independent SME retailers and shopping centres arise from these findings. The research identifies the type of shopping centre that is ideal for SME retailers in promoting or establishing their businesses and integration of e-commerce to expand their market outreach.

Firstly, this research suggests that rapid development and growth of e-commerce is likely to influence shopping centres to adopt short-term leasing strategies in order to remain competitive and to attract retailers for leasing. Short-term leasing would also lead to the potential for purely online retailers to have the opportunity to gain access to a physical presence for a period of time and attract clients. This thesis found the main reason for purely online retailers aiming to lease a physical store for a short period was to attract and gain the trust of new customers by word-of-mouth. Kuan and Bock (2007) asserted that word-of-mouth was one of the most important sources of information influencing new customers to familiarise themselves with the purely online retailers. However, the survey in the current study found that the word-of-mouth might be less important for shoppers who are confident in shopping online. Word-of-mouth was considered as the least preferred source of information by consumers who frequently browsed online. In other words, once a consumer has trust in a retailer's online store, word-of-mouth would become less effective as a source of information. This is one of the possible explanations for why successful purely online retailers may want to lease a physical store for a short-term period. Nevertheless, across all survey respondents, word of mouth ranked third in comparison to other sources of information (i.e., Google search was ranked first and in-store browsing was ranked second).

Secondly, this thesis provides evidence that a key challenge for independent SME speciality retailers offering their products through online platforms, in addition to a physical 'bricks and mortar' presence, is related to obtaining positive responses from consumers online. In order for independent SME retailers to capitalise on the benefits of online shopping, they need to strengthen their communication skills in the online shopping sphere. As identified in this thesis, independent SME retailers were not able to effectively transfer their expertise and knowledge to online shopping, which led to

consumers abandoning their online purchase intentions. Formal training and education was considered essential for independent SME retailers in order to sustain their competitiveness in the new economy<sup>21</sup>. Once the independent SME retailers acquire the ability to attract consumers on online platforms, they will be able to offer their products and services to a larger market than just being confined to a particular shopping centre trade area. For example, independent speciality stores can be located in a shopping centre for a short period in order to initiate contact and trust with the consumers, and steadily shift the communication from physical to online. This would give independent SME retailers the flexibility and opportunity to locate in different shopping centre trade areas, enabling them to capture a bigger market. Diversification of customer base beyond geographic boundaries is a risk mitigation strategy that may reduce the high rates of failure in SME independent speciality stores during the first year (Byrom, Medway, and Warnaby, 2003). Additionally, independent SME retailers may need to capture a bigger market in order to sustain their competitiveness for longer periods, because the demand for purchasing speciality products arises only occasionally. A short-term lease was believed to facilitate retailers, especially independent SME retailers, to utilise both their physical stores and online platforms effectively.

Thirdly, in order, for shopping centres to accommodate changes (leasing approach) driven by technological advancement, shopping centre management need to be flexible. However, flexibility of the shopping centre management might be hindered by the size of the shopping centre. For example, Roberts et al. (2010) found that the presence of a large number of stores in a regional shopping centre creates difficulty for the shopping centre management in making quick responses or adjustments to retailers' needs. Additionally, shopping centre management is constrained legislatively as they need to follow the law that governs retail leasing and other legislation governing shopping. The current research found that neighbourhood shopping centres were less preferred for browsing due to their limited range of stores and products. In this context, the sub-regional shopping centre, which is neither too small nor too big in

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<sup>21</sup> The new economy is defined as “production and service based on knowledge-intensive activities that contributed to an accelerated pace of technological and scientific advance as well as equally rapid obsolescence” (Powell and Snellman, 2004, p. 201).

terms of size, holds the advantage in facilitating the established purely online retailers' ability to rent a physical space for short periods. Additionally, rent costs in sub-regional shopping centres are lower than in the regional shopping centres. A short-term lease may assist the sub-regional shopping centres in offsetting the lack of competitiveness in terms of 'attractiveness for leisure and one-stop shopping' and 'proximity' factors, as discussed earlier. For example, consumers may feel excited about browsing in-store because they are aware of finding new retailers or products. Thus, satisfying the benefit of browsing that is either acquiring new information relating to the product/retailer or making an impulse purchase because the product was found to be suitable to one's need.

As for regional shopping centres, they will remain consumers' preferred shopping destinations for one-stop shopping because of their size. Consumers seek more variety and purchase options when shopping for speciality products, thus the ability to locate these all within one shopping centre is convenient. Therefore, the chance of consumers visiting independent speciality stores is high at the regional shopping centres. Regional shopping centres might be suitable for independent SME retailers who aim to lease a physical store for a longer period, excluding those retailers who specialise in convenience goods. Meanwhile, neighbourhood shopping centres will still be relevant in catering for the community with convenience goods such as hardware, pharmaceutical products, takeaway food and grocery shopping.

#### 6.5 Contribution to the body of knowledge

The objective of this thesis was to investigate the impact of e-commerce on speciality stores in categorised shopping centres. In order to achieve the objective of this thesis, four distinct areas of literature were combined: retail trading hours; consumer browsing behaviour; the Huff Gravity Model; and the Technology Acceptance Model (TAM). This section will discuss how this thesis has contributed to these four distinct bodies of knowledge.

The research demonstrated the reason 'why' consumers will prefer shopping on days offering extended retail trading hours. This adds to the existing theory of consumer spatial behaviour that was limited to 'when'; 'where'; and 'how often'. Understanding 'why' will assist retailers, shopping centres and policy makers to improve the retail

businesses and facilitate shopping convenience for consumers'. Furthermore, this thesis identified the role of social cognition on consumers' choice of store type within shopping centre during time-constrained shopping activity not previously discussed in the literature. Integration of social cognition factor improved the predictability of spatial interaction theory specifically for shopping centres. This is also an important contribution for independent speciality retailers as they can establish the potential demand for their products and services within a particular shopping centre trading area. Research identified leasing strategies to attract consumers' to shop and/or browse at the three categories of shopping centres: regional, sub-regional and neighbourhood shopping centres.

Application of consumer browsing behaviour in determining the effectiveness of extended trading hours has revealed the possibility of consumers' experiencing choice overload during restricted retail trading hours. The thesis demonstrated that the consumer browsing and non-browsing behaviour influences the occurrence of choice overload, but not the time spent in browsing the product. This is an important contribution as the effect of in-store browsing time on the visibility of speciality stores has not been previously established. Hence, the extended trading hours do not reduce choice overload unless shopping centres entice consumers to browse. This research has therefore clarified that the extended trading hours has negligible effectiveness in regards to consumers' choice overload.

Furthermore, findings indicate that the use of existing Huff's Gravity Model in predicting the performance of the shopping centre during extended trading hours may overlook the economic consequences of non-browsing behaviour on independent speciality store retailers. The thesis demonstrated that the integration of consumer browsing behaviour with Huff's Gravity Model enhances the accuracy of the model's prediction. This is an important contribution as the research successfully introduced a way to capture deeper insight of a shopping centre performance.

This thesis has established consumers' browsing behaviour during weekday late evening (WLE) trading hours. A key finding of this research was identifying that the opportunity costs for consumers were shopping displacement. Rather than shopping on weekends, they would shop during WLE trading hours.

Research also identified factors affecting the use of e-commerce by consumers' when shopping from an independent speciality store retailer. Understanding the weaknesses will assist independent speciality retailers to improve their competitiveness. Furthermore, this thesis successfully established the interaction between the Technology Acceptance Model and Huff's Gravity Model. The convergence of these two distinct models is an important contribution as it supersedes the functions of the previous models.

Finally, the integration of the four distinct areas of literature in this thesis enabled the researcher to conclude that the cost of doing business for SME retailers, irrespective of their location in any category of shopping centre, will likely be greater than their earning profit as the frequency of extended trading hours are increased. This thesis also presents a model to enrich the understanding of the effect of trading hours on the performance of speciality stores. This is a significant contribution to theory and to industry, for shopping centres and independent SME retailers when estimating the likelihood of achieving success with an extension of trading hours.

## 6.6 Future research directions

There are a number of areas for future research arising from this study. This research was conducted in only one shopping centre trade area. Therefore, further investigation at other shopping centre trading areas at both domestic and international level would aid in theoretical development that will enhance the model and generalisability of the findings.

This research also found that the high-income groups were less affected by the restricted retail trading hours when purchasing speciality products. One of the possible reasons was that the analysis of the data controlled the factor of consumers' shopping behaviour by their most preferred product category for browsing in-store. Therefore, future research can re-employ the model to investigate the probability of high-income groups to experience shopping inconvenience for products they lack knowledge during restricted retail trading hours. This would help in confirming the versatility of this model.

## 6.7 Conclusion

This research has established that the use of e-commerce by consumers' to reduce shopping inconvenience when purchasing speciality products during restricted retail trading hours is low. Yet, e-commerce is useful for consumers' to visit shopping centre with pre-determined purchase objective. Consumers with no store/brand preference were more likely to use e-commerce. Furthermore, price-conscious shoppers have the benefit of using e-commerce as they can keep track of discounts and on-going sales without travelling to the shopping centre. This research indicates that a consumer who prefers browsing the speciality products on e-commerce is more likely to choose the regional shopping centre than sub-regional or neighbourhood shopping centres. Hence, online browsing to some extent may have negative impact on small-sized shopping centres.

However, in this thesis, the use of e-commerce for fashion speciality products especially when making a direct purchase or comparing products online prior to purchasing in-store, was not notable. Non-repetitive purchases and the requirement for customer assistance was one of the main reasons why consumers abandoned the use of online shopping. Additionally, social cognition was an important factor influencing the purchase decisions regarding speciality products. Consequently, consumers' income level affected their confidence in purchasing online. These factors were found to have an adverse effect on the survival of independent SME speciality retailers on e-commerce.

Despite the inconvenience of restricted retail trading hours and infrequent use of e-commerce for speciality products, this thesis established that the independent speciality stores in all categories of shopping centres were unlikely to experience an increase in sales volume or profit by extending trading hours. One of the main reasons is that the need for purchasing speciality products arises occasionally. Nevertheless, the provision for weekday late evening trading hours in shopping centres achieves three congruent objectives. Firstly, consumers gain additional time to spend for leisurely shopping activities and/or browsing products in-store. This enables consumers to become aware of the various independent speciality stores within the shopping centre, thus enhancing the visibility of the stores and their product offerings.

However, if consumers do not enjoy browsing in-store, the time spent browsing in-store will have no influence on the visibility of the independent speciality stores. Yet, consumers, especially females, were found to spend more time when browsing and/or purchasing speciality products at independent speciality stores. Hence, the provision for WLE trading hours provides opportunity for effective interaction between consumers and independent speciality stores.

Secondly, provision of WLE trading hours was found to be beneficial for browsers because they were more likely than non-browsers to seek customer assistance. Furthermore, it creates an opportunity for independent speciality stores as they get to share their knowledge and expertise of their products and services with the browsers and this may influence future purchases. However, social cognition was pertinent in the selection of the independent speciality stores. Therefore, the demand for shopping at independent speciality stores during extended trading hours will mostly arise from low-income groups.

Thirdly, provision of WLE trading hours facilitates consumers in gaining instant gratification. This is particularly evident, as those consumers whose shopping activities at independent speciality stores were most affected by restricted trading hours, when visiting the regional shopping centre during WLE trading hours. Hence, limiting the trading hours is causing consumers to perceive the retail services provided by physical stores and online shopping to some extent as similar, as they are deprived of instant gratification.

Finally, this thesis has addressed the challenges of independent SME speciality retailers through the development of strategies in terms of leasing a physical store, which would facilitate the use of both physical and online shopping effectively. Hence, this thesis contributes towards the development of entrepreneurial skills of those individuals who aspire to become a successful entrepreneur especially in the complex retail industry and in fostering an entrepreneurial culture within the society by providing the knowledge to access the right infrastructure.

## APPENDICES

### **Appendix 1: Focus group recruitment letter**

Cities Research Institute,  
Griffith Business School,  
Griffith University, 170 Kessels Road,  
Nathan Campus, Queensland 4111, Australia



**Griffith University ethics reference no: 2016/455**

Dear Sir/Madam,

I am Vikram Khangembam, a PhD student at Cities Research Centre, Griffith school of Business, Griffith University, Australia. I am currently undertaking data collection for my research entitled "Impact of e-commerce on specialty stores in categorized shopping centers". This involves the exploration on consumers' shopping preferences and their browsing behaviour within a shopping centre.

The focus group discussion will be primarily focused on consumer browsing behaviour within a shopping centre and how it may be influence by e-commerce and its effect on speciality stores.

Your contact detail was referred to me by (reference) and since you belong to the age group of (young adult or middle aged group). I would like to invite you to join in a focus group discussion on (time and date of the focus group) at (location of the focus group). It is very much hoped you will agree to participate to share your opinion about shopping preferences, e-commerce, speciality stores and consumer browsing behaviour within a shopping centre.

If you agree to participate, please contact Vikram Khangembam by (date/month/year). For further details please find attached the research information package. If you have any enquiries please do not hesitate to contact me via email: [vikram.khangembam@griffithuni.edu.au](mailto:vikram.khangembam@griffithuni.edu.au) or call me on 0469428415.

Sincerely,

Vikram Khangembam

## Appendix 2: Information Sheet – Focus groups



### Impact of e-commerce on specialty stores in categorized shopping centers

Griffith University ethics reference no: 2016/455

#### Research Team member:

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Vikram Khangembam (PhD Student)  
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#### What is this research about?

The aim of this research is to analyse the impact of e-commerce on speciality stores in categorised shopping centres. A single case study was employed to achieve the objective of this research where a regional shopping centre, sub-regional shopping centre and neighbourhood shopping centres have an overlapping trading area and they are located within Brisbane City (According to Local Government Area).

#### Why is this research being conducted?

This research is a component of my PhD program at Griffith University, Australia.

The objectives of this study are to document and examine:

- (i) Investigate consumer browsing behavior in categorized shopping centers.
- (ii) Investigate the interaction of Huff's gravity model and the Technology Acceptance Model (TAM) on factors influencing consumer in-store browsing behaviour.
- (iii) Investigate the effect of extended trading hours of the shopping centers on consumer in-store browsing behavior.

#### What you will be asked to do?

The participants in this research will be requested to take part in focus groups

discussion of approximately 90 minutes. Participants will be invited to express their views, experiences, and visions regarding specialty stores in categorized shopping centers. The focus groups aims to understand consumers browsing behaviour in a shopping centre and how consumers browsing behaviour may be influence by e-commerce and its effect on speciality stores.

### **Participants Selection**

The target participants are individuals (young adults aged 18 to 34 and middle aged group from 35 to 54) who reside within the sub-regional shopping centre trade area.

### **The expected benefits of the research**

The benefit for the shopping centres will be in having independent research that they can utilise to attract and retain prospective tenants to their shopping centres. Speciality retailers will also be able to utilise this research to gain an understanding of consumer browsing behaviour and the important role this plays in the economic aspect of sales and service of the speciality stores and how they can adapt these strategies to gain economic advantage. This information will include shoppers' opinions and experiences in categorized shopping centers and the impact of e-commerce on specialty stores.

As products and services improve consumer expectations change. This caused the bar to be continuously raised- making it important to understand this changing customer perspective. Therefore, the findings from this research will enable business owner, especially the small and medium enterprise (SME) retailers to adapt the necessary changes and enhance customer shopping experiences within a shopping center.

This research will also facilitate urban planning with the scope of integrating technology such as the e-commerce into the retail centers to enhance the shopping experiences with the changing lifestyle and needs of the consumers'.

### **Risk to you**

There are no foreseeable risks caused by this research to the participants or the research team; no risks to the environment and there are no risks that could affect your career.

Your participation is voluntary and you may withdraw your participation at any time. There are no penalty or loss benefits for not participating or for discontinuing your participation.

### **Your confidentiality**

The records of this study will be kept private. All your responses will be coded for analysis to remove individual identification. None of the specific records will be used for wider purposes other than researcher's academic program including academic publication such as journal articles, conference presentations, social media and PhD thesis. In any report to be published, no information will be provided that could identify you. As required by Griffith University, all audio recordings will be erased after transcription. However, the research data (interview transcripts and analysis) will be retained in a locked cabinet and/or a password protected electronic file at Griffith University for a period of five years before being destroyed.

### **Questions/further information**

If you have any additional queries, concerns or complaint about this research, you may contact any of the research team members.

### **The ethical conduct of this research**

Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research. If potential participants have any concerns or complaints about the ethical conduct of the research project they should contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 7 3735 4375; email: [research-ethics@griffith.edu.au](mailto:research-ethics@griffith.edu.au)

### **Feedback to you**

A summary of research findings will be delivered to all participants via email or post, when requested. Research findings will also be communicated through academic and other publications and conference presentations. In addition, a copy of the thesis will be provided to the management of the shopping center that has participated in this research as a full report on the findings of the research on request.

**Privacy Statement**

The conduct of this research may involve the collection, access and/or use of your identified personal information. The information collected is confidential and not will be disclosed to third parties without your consent, except to meet government, legal or other regulatory authority requirements. A de-identified copy of this data may be used for other research purposes. However, your anonymity will at all times be safeguarded. For further information consult the Griffith University's Privacy Plan at <http://www.griffith.edu.au/about-griffith/plans-publications/griffithuniversity-privacy-plan> or telephone +61 7 3735 4375.

**A thank you for your participation**

As a token of gratitude for your participation, Griffith University merchandise will be presented.

**Appendix 3: Semi structured open-ended questions - Focus groups**  
**Impact of e-commerce on speciality stores in categorised shopping centre**  
**Griffith University ethics reference no: 2016/455**

Individual Opinions

1. How often do you visit a shopping centre in a week?
2. What are the reasons for you to visit a shopping centre?
3. Do the current opening hours of the shopping centres affect your daily shopping and browsing activities within a shopping centre? Why?
4. Select two types of products you usually browse in a Regional shopping centre from the following table as given below:

Fashion	Homewares and appliances	Groceries & Liquor
Media	Department and variety stores	Personal and recreational goods
Takeaway food	Toys & Electronics	

5. Select two types of products you usually browse in a Sub-regional shopping centre from the following table as given below:

Fashion	Homewares and appliances	Groceries & Liquor
Media	Department and variety stores	Personal and recreational goods
Takeaway food	Toys & Electronics	

6. Select two type of products you usually browse in a neighbourhood shopping centre from the following table as given below:

Fashion	Homewares and appliances	Groceries & Liquor
Media	Department and variety	Personal and recreational goods

	stores	
Takeaway food	Toys & Electronics	

7. How would you describe your browsing behaviour within a regional, sub-regional and neighbourhood shopping centres?

#### Main Discussions

8. Which category of shopping centre as mentioned in question 7 do you consider most favourable for your browsing activity that leads you to visit a speciality store and why?
9. How important is the distance to shopping centre for you while making your shopping trip and browsing activity?
10. How important is the ease of access in getting to the shopping centre?
11. Consider the situation where you need to purchase a product and you have already determined the brand and product to purchase. Will you visit a shopping centre with numerous options to choose from or visit the nearest shopping centre where the product is available regardless of limited or few options to compare the products with other brand?
12. Consider the situation where you need to purchase a product and you do not know what brand and what type of product to purchase. How will you determine your shopping location?

#### Individual Opinions

13. How and when do you usually use e-commerce for shopping?
14. What are the reasons for you to select the e-commerce service? List any 2 reasons that you consider most important?
15. Do you think online shopping has reduced the frequency of your browsing in shopping centres? Why?
16. Do you think online shopping reduced the frequency of you visiting a speciality store within a shopping centre? Why?

17. Are you confident with online shopping? Why?

#### Main Discussions

18. If you were in charge of making one change that will protect your information and improve the trust on online shopping. What would you do?

19. What are the two most important changes that you would recommend for Small and Medium Enterprises (SME), which would enable them to attract customers in e-commerce platform?

20. What are the perceived positive effects of e-commerce for shopping centres?

21. What are the perceived negative effects of e-commerce for shopping centres?

22. Consider that you can shop the products online as mentioned in question 4, 5 and 6. Will you consider in reducing your browsing activity within the shopping centre for the product category as mentioned in question 4, 5 and 6.

23. How would you describe your shopping behaviour during Thursday extended trading hours?

#### Recommendations

24. What could speciality stores do to attract more customers?

25. What could Regional shopping centre do to attract more customers to shop and browse in their specialty stores?

26. What could sub-regional shopping centre do to attract more customers to shop and browse in their specialty stores?

27. What could neighbourhood shopping centre do to attract more customers to shop and browse in their speciality stores?

## Appendix 4: Consent form- Focus groups



### Impact of e-commerce on specialty stores in categorized shopping centers

Griffith University ethics reference no: 2016/455

Research Team member:

A/prof Sacha Reid (Principal Supervisor)  
Contact Phone: +61 7 37356559  
Contact email: [s.reid@griffith.edu.au](mailto:s.reid@griffith.edu.au)

Dr Kathy Lloyd (Associate Supervisor)  
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Contact email: [e.coiacetto@griffith.edu.au](mailto:e.coiacetto@griffith.edu.au)

Vikram Khangembam (PhD Student)  
Contact Phone: + 61 7 3735 5534  
Contact email: [Vikram.khangembam@griffithuni.edu.au](mailto:Vikram.khangembam@griffithuni.edu.au)

By signing below, I confirm that I have read and understood the information package and in particular have noted that:

I understand that:

1. My involvement in this research will involve participation in a focus group discussion with other participants (approximately 6 - 9 people) between August 2016 and February 2017.
2. My participation will be audio-recorded in a digital file and I will be provided with a copy of the transcripts and have an opportunity to verify them.
3. The audio-file will be erased following transcription.
4. The transcription will be stored in a locked filing cabinet at Griffith University for 5 years after which time it will be destroyed confidentially.
5. Only the research team will have access to the data.
6. What are the risks involved.
7. There will be no direct benefit to me from my participation in this research.
8. My participation in this research is voluntary.
9. If I have any additional questions I can contact the research team.
10. I am free to withdraw at any time, without explanation or penalty.
11. I have had any questions answered to my satisfaction.

12. I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 7 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project.

I agree to:

1. Respect the privacy of comments made by others during the focus group; and
2. Participate in the project.

Name : \_\_\_\_\_

Signature : \_\_\_\_\_

Date : \_\_\_\_\_

## Appendix 5: In depth personal interview recruitment letter



To  
Centre Manager,  
(Name of the Shopping Centre),  
Queensland-4109, Australia

**Griffith University ethics reference no: 2016/455**

Dear Sir/Madam,

I am Vikram Khangembam, a PhD student at Cities Research Centre, Griffith University, Australia. I am currently undertaking PhD research titled "The Impact of e-commerce on specialty stores in categorized shopping centres".

The objectives of this study are to document and examine:

1. Investigate consumer browsing behavior in categorized shopping centers.
2. Investigate the interaction of Huff's gravity model and Technology Acceptance Model (TAM) on factors influencing consumer in-store browsing behaviour.
3. Investigate the effect of extended trading hours of the shopping centers on consumer in-store browsing behavior.

In support of the above, I would like to conduct a semi-structured interview with the shopping centre manager in order to obtain their perception of the impact of e-commerce on specialty stores within the Shopping Centre.

For further details please find attached my research proposal, information sheet and consent form. Thank you very much. If you have any enquiries please do not hesitate to contact me via email [vikram.khangembam@griffithuni.edu.au](mailto:vikram.khangembam@griffithuni.edu.au).

Sincerely,

Vikram Khangembam  
Cities Research Institute  
Griffith Business School,  
Nathan Campus, Griffith University,  
Queensland 4111, Australia

## Appendix 6: Information Sheet – Personal interview



### Impact of e-commerce on specialty stores in categorized shopping centers

Griffith University ethics reference no: 2016/455

Research Team member:

A/prof Sacha Reid (Principal Supervisor)

Contact Phone: +61 7 37356559

Contact email: [s.reid@griffith.edu.au](mailto:s.reid@griffith.edu.au)

Dr Kathy Lloyd (Associate Supervisor)

Contact Phone: +61 7 373 56651

Email: [k.lloyd@griffith.edu.au](mailto:k.lloyd@griffith.edu.au)

A/Prof Eddo Coiacetto (External Supervisor)

Contact Phone: [+61 7 3735 6678](tel:+61737356678)

Contact email: [e.coiacetto@griffith.edu.au](mailto:e.coiacetto@griffith.edu.au)

Vikram Khangembam (PhD Student)

Contact Phone: + 61 7 3735 5534

Contact email: [Vikram.khangembam@griffithuni.edu.au](mailto:Vikram.khangembam@griffithuni.edu.au)

#### What is this research about?

The aim of this research is to analyse the impact of e-commerce on speciality stores in categorised shopping centres. A single case study was employed to achieve the objectives of this research where a regional shopping centre, sub-regional shopping centre and neighbourhood shopping centres have an overlapping trading area and they are located within Brisbane City (According to Local Government Area).

#### Why is this research being conducted?

This research is a component of my PhD program at Griffith University, Australia.

The objectives of this study are to document and examine:

- (iv) Investigate consumer browsing behavior in categorized shopping centers.
- (v) Investigate the interaction of Huff's gravity model and Technology Acceptance Model (TAM) on factors influencing consumer in-store browsing behaviour.
- (vi) Investigate the affect of extended trading hours of the shopping centers on consumer in-store browsing behavior.

### **What you will be asked to do?**

In this research, your participation in semi structured in-depth interview will be requested. The interview will be undertaken approximately 60 minutes to obtain information on your views, experiences, and vision regarding the impact of e-commerce on specialty stores within the shopping centre.

### **Participants Selection**

The target participants are individuals who are the employees of the shopping centre management and have an integral role in marketing and leasing of the shopping centre space.

### **The expected benefits of the research**

The benefit for the shopping centres will be in having independent research that they can utilise to attract and retain prospective tenants to their shopping centres. Speciality retailers will also be able to utilise this research to gain an understanding of consumer browsing behaviour and the important role this plays in the economic aspect of sales and service of the speciality stores and how they can adapt these strategies to gain economic advantage. This information will include shoppers' opinions and experiences in categorized shopping centres and the impact of e-commerce on specialty stores.

As products and services improve consumer expectations change. This caused the bar to be continuously raise making it important to understand this changing customer perspective. Therefore, the findings from this research will enable business owner, especially the small and medium enterprise (SME) retailers to adapt the necessary changes and enhance customer shopping experiences within a shopping centre. This research will also facilitate urban planning with the scope of integrating technology such as the e-commerce into the retail centres to enhance the shopping experiences with the changing lifestyle and needs of the consumers'.

### **Risk to you**

There are no foreseeable risks caused by this research to the participants or the research team; no risks to the environment and there are no risks that could affect your career. Your participation is voluntary and you may withdraw your participation

at any time. There are no penalty or loss benefits for not participating or for discontinuing your participation.

### **Your confidentiality**

The records of this study will be kept private. All your responses will be coded for analysis to remove individual identification. None of the specific records will be used for wider purposes other than researcher's academic program including academic publication such as journal articles, conference presentations, social media and PhD thesis. In any report to be published, no information will be provided that could identify you. As required by Griffith University, all audio recordings will be erased after transcription. However, the research data (interview transcripts and analysis) will be retained in a locked cabinet and/or a password protected electronic file at Griffith University for a period of five years before being destroyed.

### **Questions/further information**

If you have any additional queries, concerns or complaint about this research, you may contact any of the research team members. The ethical conduct of this research Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research. If potential participants have any concerns or complaints about the ethical conduct of the research project they should contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 7 3735 4375; email: [research-ethics@griffith.edu.au](mailto:research-ethics@griffith.edu.au)

### **Feedback to you**

A summary of research findings will be delivered to all participants via email or post, when requested. Research findings will also be communicated through academic and other publications and conference presentations. In addition, a copy of the thesis will be provided to the management of the shopping centre that has participated in this research as a full report on the findings of the research on request.

### **Privacy Statement**

The conduct of this research may involve the collection, access and/or use of your identified personal information. The information collected is confidential and not will be disclosed to third parties without your consent, except to meet government, legal

or other regulatory authority requirements. A de-identified copy of this data may be used for other research purposes. However, your anonymity will at all times be safeguarded. For further information consult the Griffith University's Privacy Plan at <http://www.griffith.edu.au/about-griffith/plans-publications/griffithuniversity-privacy-plan> or telephone +61 7 3735 4375.

**A thank you for your participation**

As a token of gratitude for your participation, Griffith University merchandise will be presented

## Appendix 7: Semi Structured Personal Interview Guide

### Impact of e-commerce on speciality stores in categorised shopping centre

Griffith University ethics reference no: 2016/455

1. How do you perceive the challenges of online shopping on shopping centers and the specialty stores?
2. How can Shopping Centre provide competitive advantage to specialty store retailers?
3. How can shopping Centre improve consumer browsing behavior amidst the increasing usage of online shopping and browsing of product information online?
4. Do you think size of the Shopping Centre is important for shoppers to select their shopping destination?
5. How can Shopping Centre improve consumers' information processing or purchase decision making within the Shopping Centre, when the size of the Shopping Centre has large assortment of product lines and has many options to choose from?
6. What are the positive and negative effects of restricted trading hours on shopping centre performance?
7. How can shopping centres overcome the limitations of restricted trading hours to compete with online shopping?
8. Is it effective for shoppers with time constraint?
9. Which product categories as listed below are best suited for a speciality stores and will have less impact by online shopping?

Fashion	Homewares and Appliances	Groceries & Liquor
Media	Department stores	Personal and Recreational goods
Takeaway food	Toys & Electronics	

10. How are shopping centres trying to improve the accessibility of the shopping centre to its customers?

11. How can the small and medium enterprises gain from leasing the specialty stores in the Shopping Centre?
12. How can Shopping Centre be dynamic or adapt the changing trend and interest of their shoppers?

## Appendix 8: Consent form- Personal interview



### Impact of e-commerce on specialty stores in categorized shopping centers

Griffith University ethics reference no: 2016/455

Research Team member:

A/prof Sacha Reid (Principal Supervisor)  
Contact Phone: +61 7 37356559  
Contact email: [s.reid@griffith.edu.au](mailto:s.reid@griffith.edu.au)

Dr Kathy Lloyd (Associate Supervisor)  
Contact Phone: +61 7 373 56651  
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A/Prof Eddo Coiacetto (External Supervisor)  
Contact Phone: +61 7 3735 6678  
Contact email: [e.coiacetto@griffith.edu.au](mailto:e.coiacetto@griffith.edu.au)

Vikram Khangembam (PhD Student)  
Contact Phone: + 61 7 3735 5534  
Contact email: [Vikram.khangembam@griffithuni.edu.au](mailto:Vikram.khangembam@griffithuni.edu.au)

By signing below, I confirm that I have read and understood the information package and in particular have noted that:

I Understand that:

1. My involvement in this research will include a semi-structured interview, of approximately 30 minutes, during the period between October 2016 and March 2017.
2. My interview will be audio-recorded in a digital file and I will be provided with a copy of the transcripts and have an opportunity to verify them.
3. The audio-file will be erased following transcription.
4. The transcription will be stored in a locked filing cabinet at Griffith University for 5 years after which time it will be destroyed confidentially.
5. Only the research team will have access to the data.
6. I have had any questions answered to my satisfaction.
7. The risks involved.
8. There will be no direct benefit to me from my participation in this research.
9. My participation in this research is voluntary.
10. If I have any additional questions, I can contact the research team.
11. I am free to withdraw at any time, without explanation or penalty.

12. Any reference to the information I provide will be done through the position I hold in the institution or association I represent.
13. I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on +61 7 3735 4375 (or research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project.

I agree to participate in the project.

Name : \_\_\_\_\_

Signature : \_\_\_\_\_

Date : \_\_\_\_\_

## Appendix 9: Permission for undertaking questionnaire survey



Cities Research Centre,  
Griffith Business School,  
Griffith University,  
170 Kessels Road,  
Nathan Campus, Queensland 4111  
Australia

### **Griffith University ethics reference no: 2016/455**

Dear Sir/Madam,

I am Vikram Khangembam, a PhD student at Cities Research Centre, Griffith University, Australia. I am currently undertaking PhD research titled “The Impact of e-commerce on speciality stores in categorized shopping centers”.

The aim of the research is to understand the socioeconomic impact of e-commerce on speciality stores in categorised shopping centres. Part of this research involves exploring consumers browsing behaviour in a shopping centre and how consumers browsing behaviour may be influenced by e-commerce and its effect on speciality stores. I planned to gather this information through consumer survey by distributing questionnaire to the shoppers’ visiting the shopping centre.

The benefit for the shopping centres will be in having independent research that they can utilise to attract and retain prospective tenants to their shopping centres. Speciality retailers will also be able to utilise this research to gain an understanding of consumer browsing behaviour and the important role this plays in the economic aspect of sales and service of the speciality stores and how they can adapt these strategies to gain economic advantage. This information will include the result of this questionnaire survey.

A mall intercept method will be employed to collect the responses for the questionnaire survey. In this method, the surveyor attempts to question the

respondents at a central point within the shopping centre or at the entrance and the surveyor will be on hand to explain the questions.

Therefore, I would like to request for permission to conduct the questionnaire survey within the shopping centre premises in order to achieve the objectives of this research. Targeted participants are young adult (age 18 to 34) and middle age group (35 to 54). If permission is granted, there will be one surveyor named: (name of surveyor) who will conduct the survey.

For further details please find attached my research proposal, information sheet and consent form. Thank you very much. If you have any enquiries please do not hesitate to contact me via email [vikram.khangembam@griffithuni.edu.au](mailto:vikram.khangembam@griffithuni.edu.au) or mobile: 0469428415

Sincerely,

Vikram Khangembam

## Appendix 10: Closed ended questionnaire survey

### Impact of e-commerce on speciality stores in categorised shopping centre

Griffith University ethics reference no: 2016/455

1. Select the appropriate age bracket you fall into
  - a) 19 -34 years
  - b) 35-54 years
2. Which is the nearest shopping centre from your house?
  - a) Regional shopping centre
  - b) Sub-regional shopping centre
  - c) Neighbourhood shopping centre (local strip centre)
3. Your gender?
  - a) Male
  - b) Female
4. How many times do you visit shopping centre in a week?
  - a) Less than once a week
  - b) Once a week
  - c) 2-3 times a week
  - d) More than 3 times a week
5. How many times do you visit shopping centres for recreational purposes in a week?
  - a) Less than once a week
  - b) Once a week
  - c) 2-3 times a week
  - d) More than 3 times a week
6. How often do you carry a shopping list (mental or physical) when visiting a shopping centre?
  - a) Never
  - b) Rarely
  - c) Sometimes
  - d) Most of the time
  - e) Always
7. Despite having a shopping list, how often do you make an extra purchase?
  - a) Never

- b) Rarely
- c) Sometimes
- d) Most of the time
- e) Always

8. How do you gather information about the product you are interested in purchasing? Rank the following medium from 1 (most preferred) to 7 (least preferred).

- a) Google search
- b) Browsing in a shopping centre
- c) Word of mouth
- d) Social media
- e) Press (i.e., newspaper, magazines)
- f) Advertisement (both radio and television)
- g) Articles and blog post

9. Do you like or dislike browsing within shopping centre?

- a) Dislike a great deal
- b) Dislike somewhat
- c) Neither dislike nor like
- d) Like somewhat
- e) Like a great deal

10. Select one product category you prefer the most to browse in a shopping centre

- a) Fashion (apparels, shoes, clothing, bags, jewellery)
- b) Personal goods (cosmetics and shampoo)
- c) Liquor
- d) Furniture
- e) Sports goods
- f) Electronics and appliances
- g) Books and DVDs
- h) Homewares
- i) Takeaway food
- j) Toys

11. In minutes, indicate the time you usually spend browsing the product (product selected in Q10) when visiting a shopping centre with a purchase intention?
12. In minutes, indicate the time you usually spend browsing the product (product selected in Q10) when visiting a shopping centre with a recreational purpose?
13. Select only one shopping destination that you would prefer the most to browse the product as selected in Q10
  - a) Regional shopping centre
  - b) Sub-regional shopping centre
  - c) Neighbourhood shopping centre (local strip centre)
  - d) Online shopping
  - e) Other shopping centres
14. Please indicate your reasons for your selection in Q13
  - a) Price
  - b) Availability of variety of products
  - c) Ease of accessibility
  - d) Time saving
  - e) Presence of preferred store/brand
15. How important or unimportant is the distance to shopping centre to you, while purchasing the products as selected in Q10?
  - a) Not at all important
  - b) Slightly important
  - c) Moderately important
  - d) Very important
  - e) Extremely important
16. For the product selected in Q10, indicate your preferred store type for purchasing the product
  - a) Speciality store (e.g., a small store specialising in a single product line)
  - b) Discount department store (e.g., Kmart)
  - c) Have no preference for any store type
17. Please indicate your reasons if you have selected either a speciality store or a discount department store in Q16
  - a) Price
  - b) Availability of variety of products

- c) Ease of Access
- d) Time saving
- e) Preferred store/brand

18. How often do you compare products before purchasing in-store?

- a) Never
- b) Rarely
- c) Sometimes
- d) Most of the time
- e) Always

19. Do the limited opening hours (9am-5pm) of the speciality stores in a shopping centre cause convenience or inconvenience to your shopping activity?

- a) Very inconvenient
- b) Somewhat inconvenient
- c) Neutral
- d) Somewhat convenient
- e) Very convenient

20. Do you prefer shopping on days that have extended opening hours (9am-9pm)?

- a) Do not prefer
- b) Prefer slightly
- c) Prefer moderately
- d) Prefer a lot
- e) Prefer a great deal

21. How often do you visit the regional shopping centre during the extended trading hours 5pm-9pm?

- a) Never
- b) Rarely
- c) Sometimes
- d) Most of the time
- e) Always

22. How often do you visit the sub-regional shopping centre during the extended trading hours 5pm-9pm?

- a) Never
- b) Rarely

- c) Sometimes
- d) Most of the time
- e) Always

23. How often do you visit the neighbourhood shopping centre during the extended trading hours 5pm-9pm?

- a) Never
- b) Rarely
- c) Sometimes
- d) Most of the time
- e) Always

24. How often do you rely on online shopping due to limited opening hours of the shopping centre?

- a) Never
- b) Rarely
- c) Sometimes
- d) Most of the time
- e) Always

25. Select the most preferred mode of transportation when visiting regional shopping centre

- a) Private cars
- b) Public transportation
- c) Cycling
- d) Walking
- e) Taxi

26. Select the most preferred mode of transportation when visiting sub-regional shopping centre

- a) Private car
- b) Public Transportation
- c) Cycling
- d) Walking
- e) Taxi

27. Select the most preferred mode of transportation when visiting neighbourhood shopping centre

- a) Private cars
- b) Public transportation
- c) Cycling
- d) Walking
- e) Taxi

28. Do you find it easy or difficult to recall the speciality stores you are interested in regional shopping centre

- a) Very difficult
- b) Somewhat difficult
- c) Neutral
- d) Somewhat easy
- e) Very easy

29. Do you find it easy or difficult to recall the speciality stores you are interested in sub-regional shopping centre

- a) Very difficult
- b) Somewhat difficult
- c) Neutral
- d) Somewhat easy
- e) Very easy

30. Do you find it easy or difficult to recall the speciality stores you are interested in neighbourhood shopping centre

- a) Very difficult
- b) Somewhat difficult
- c) Neutral
- d) Somewhat easy
- e) Very easy

31. How often do you require customer assistance when purchasing the product you selected in Q10?

- a) Never
- b) Rarely
- c) Sometimes
- d) Most of the time
- e) Always

32. When you make online purchases, do you usually have high or low level of trust on online transactions?

- a) Very low
- b) Slightly low
- c) Neutral
- d) Slightly high
- e) Very high

33. Do you purchase the product as selected in Q10 more often online now, than you did two years ago?

- a) Much less often
- b) Slightly less often
- c) About the same
- d) Slightly more often
- e) Much more often

34. What is the postcode or suburb that you are currently residing in?

35. What is your current employment status?

- a) Employed full-time
- b) Employed part-time
- c) Student
- d) Unemployed

36. Select the appropriate annual gross (before tax) income group you fall into

- a) Less than AUD\$21,400
- b) AUD\$21,401-\$44,940
- c) AUD\$44,941-\$74,999
- d) Above AUD\$75,000

**Appendix 11: Measure of central tendency of survey respondents' in-store browsing time**

Survey respondents' in-store browsing time spent in the shopping centre for non-fashion and fashion product categories

Non fashion product category			Fashion product category	
Measure of central tendency and dispersion	Browsing time during goal oriented shopping visit	Browsing time during recreational shopping visit	Browsing time during goal oriented shopping visit	Browsing time during recreational shopping visit
<b><u>N</u></b>	<b><u>135</u></b>	<b><u>135</u></b>	<b><u>152</u></b>	<b><u>152</u></b>
Mean	24.96	34.10	35.34	58.08
Std. error of mean	2.018	3.816	2.870	5.469
<b><u>Median</u></b>	<b><u>20.00</u></b>	<b><u>20.00</u></b>	<b><u>30.00</u></b>	<b><u>30.00</u></b>
Mode	30.00	30.00	30.00	60.00
Std. deviation	23.452	44.336	43.574	67.429
Variance	549.983	1965.685	1898.697	4546.629
Range	120.00	300.00	240.00	420
Minimum	0.00	0.00	0.00	0
Maximum	120.00	300.00	240.00	420

Male and female survey respondents' in-store browsing time spent in shopping centre

Male shoppers			Female shoppers	
Measure of central tendency and dispersion	Male goal oriented browsing time	Male recreational browsing time	Female goal oriented browsing time	Female recreational browsing time
<b><u>N</u></b>	<b><u>85</u></b>	<b><u>85</u></b>	<b><u>202</u></b>	<b><u>202</u></b>
Mean	25.09	29.20	38.99	49.28
Std. error	2.354	4.331	2.870	4.493

of mean				
<b><u>Median</u></b>	<b><u>20.00</u></b>	<b><u>15.00</u></b>	<b><u>30.00</u></b>	<b><u>30.00</u></b>
Mode	30.00	10.00	30.00	60.00
Std. deviation	21.707	39.928	40.785	63.862
Variance	471.182	1594.257	1663.378	4078.352
Range	90.00	240.00	240.00	420
Minimum	0.00	0.00	0.00	0
Maximum	90.00	240.00	240.00	420

Shoppers' browsing time spent in shopping centre based on their preferred shopping destination for browsing activity

Goal oriented browsing time					
Measure of central tendency and dispersion	Regional shopping centre	Sub-regional shopping centre	Neighbourhood shopping centre	Online shopping	Other centres
<b><u>N</u></b>	<b><u>176</u></b>	<b><u>19</u></b>	<b><u>27</u></b>	<b><u>46</u></b>	<b><u>19</u></b>
Mean	38.27	21.84	29.00	33.33	28.53
Std. error of mean	2.971	4.462	7.735	4.389	7.243
<b><u>Median</u></b>	<b><u>30.00</u></b>	<b><u>15.00</u></b>	<b><u>10.00</u></b>	<b><u>30.00</u></b>	<b><u>15.00</u></b>
Mode	30.00	05.00	10.00	30.00	30.00
Std. deviation	39.408	19.45	40.19	29.766	31.57
Variance	1553.005	378.36	1615.46	886.022	996.82
Range	240.00	55	180.00	120.00	90
Minimum	0.00	5	0.00	0.00	0
Maximum	240.00	60	180.00	120.00	90

Male and female respondent's recreational browsing time spent in shopping centre based on respondents' preferred store type

Male shoppers				Female shoppers		
Measure of central tendency and dispersion	Department store	Speciality store	No preferred store	Department store	Speciality store	No preferred store
<b><u>N</u></b>	<b><u>28</u></b>	<b><u>38</u></b>	<b><u>19</u></b>	<b><u>67</u></b>	<b><u>81</u></b>	<b><u>54</u></b>
Mean	31.96	33.61	16.32	47.45	63.07	49.28
Std. error of mean	6.815	8.034	3.395	8.306	6.764	8.513
<b><u>Median</u></b>	<b><u>15.00</u></b>	<b><u>15.00</u></b>	<b><u>10.00</u></b>	<b><u>20.00</u></b>	<b><u>45.00</u></b>	<b><u>30.00</u></b>
Mode	10.00	10.00	10.00	60.00	60.00	60.00
Std. deviation	36.064	49.526	14.799	67.989	60.880	62.558
Variance	1300.628	2452.786	219.006	4622.4	3706.344	3913.487
Range	150.00	240.00	60.00	420.00	300.00	360
Minimum	0.00	0.00	0.00	0.00	0.00	0
Maximum	150.00	240.00	60.00	420.00	300.00	360

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