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A Study of Market Orientation in International Student Recruitment

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ABSTRACT

This paper investigates higher education (HE) student recruitment practices from the standpoint of market orientation. By adopting the well-established market orientation framework of Narver and Slater (1990), we examine the extent to which individual market orientation components are reflected in the strategies adopted by international student recruitment (ISR) departments in Australian higher-education institutions and how these, in turn, influence ISR performance. The analysis of data collected from ISR practitioners, via online survey, suggests a number of important theoretical and practical implications and strong recommendations for further research in this area.

Keywords

Higher education, International student recruitment, market orientation, customer orientation, competitor orientation, inter-functional orientation, performance.

Introduction

Facing increasing funding pressures (Himanen et al. 2009) some higher education (HE) institutions have looked to the recruitment of international students as a means of generating income (Ross, Heaney, and Cooper 2007). However, educational institutions are not only motivated towards internationalization for economic reasons. In fact, the International Association of Universities ' Global Survey of 2009 found that the top five rationales for internationalization of universities included student preparedness; curriculum and quality; profile and reputation; research and knowledge production; and increased diversity of students (Ergron-Polak and Hudson 2011). Given the multitude of benefits associated with HE internationalization, universities have become increasingly competitive within the global HE market and, as such, attracting international students has become a strategic imperative for universities in the pursuit of development, growth and sustainability (Curtis, Abratt, and Minor 2009; Simoes and Soares 2010). Further impacting international student recruitment are factors such as increased student mobility influenced by the Bologna process (Cardoso et al. 2008), changes to international student visa regulations (IEAA 2010), and declining international student enrollments, in some countries (Collins 2010). In response, there is a shift in the HE international marketplace towards institutions adopting much more of a market focus (market orientation) in an effort to improve international student recruitment performance (Bush, Ferrell, and Thomas 1998).

Within the marketing literature, market orientation has been extensively investigated in a variety of contexts (e.g., Ellis 2006; Kirca, Jayachandran, and Beardon 2005; Shoham, Rose, and Kropp 2005). However, despite the efforts of several researchers (e.g.,

Caruana, Ramaseshan, and Ewing 1998; Hemsley-Brown and Oplatka 2010; Ross and Grace 2010) this level of investigation has not yet been extended to the education marketing context. Within the marketing and education marketing literatures, there have been few studies in which the individual dimensions of market orientation are investigated (exceptions are Han, Kim, and Srivastava 1998; Hemsley-Brown and Oplatka 2010).

This study focuses on international student recruitment (ISR) in HE institutions, which is a complex domain characterised by unique influences residing within the student, the institution, external government bodies and agencies and environmental factors. By adopting the well-established market orientation framework of Narver and Slater (1990), we examine the extent to which individual market orientation components are reflected in the strategies adopted by ISR departments and how these, in turn, influence ISR performance. The contribution of this research goes beyond its contextual boundaries in that significant theoretical insights are also gained and a solid foundation for future research is laid.

Literature Review

The study of marketing strategy, in relation to any market place offering, requires a good understanding of the key factors which facilitate (or impede) the market exchange between parties (Day 1994). In the case of international education offered by HE institutions, we argue that the key factors affecting exchange (between international student and HE institution) reside within external factors (i.e. government policy, external competitive environment), institutional internal factors (i.e. mission, policies, processes, etc) and student internal factors (i.e. student mobility factors). As such, the following sections discuss

government policy enablers, student mobility factors, and internal environments of HE institutions.

Government Policy Enablers

The international education industry began to develop in the years following World War II (Auletta 2000), however, the largest growth phase in this industry has occurred over the past twenty-five years (Mazzarol and Soutar 2001). In Australia, governments have seen the continued industry growth as an opportunity to reduce government funding to HEIs with institutions developing a reliance on fee-paying international students to replace the funding reduction (Caluya et al., 2011, Long, 2010). The impact of government policy on international student recruitment is also evident in that international students are considered a potential pool of skilled migrants and, as such, potentially provide institutions and governments with a source of global competitive advantage (Ziguras and Law, 2006). Subsequently, international education has become an important global industry (Marginson 2004) that now contributes significantly to the economies of many regions around the globe (e.g. Australia, Canada, New Zealand, United Kingdom, United States etc.) (Kunin 2009; NAFSA: Association of International Educators 2007; Reserve Bank of Australia 2008). Government policy has been a key enabler of student diploma/degree mobility in international education (Conlon, Litchfield, and Sadlier 2011; Van der Wende 2001) through initiatives such as, in Europe, the Sorbonne Declaration (1998), the Bologna Declaration (1999) (Kelo, Teichler, and Wachter 2006); in USA, the Fulbright Programme (1946), Immigration and Nationality Act (1952) (Bound, Turner, and Walsh 2009); in Australia, the Education Services for Overseas Students Act 2001, the International Student Strategy for

Australia (2010) (Council of Australian Governments 2010), to name a few. As such, a number of national and international bodies (e.g., UNESCO, OEDC, AEI, etc.) are responsible for monitoring progress in this area, although the gathering of valid, comparable international data is problematic with the measurements of student mobility being a contentious issue within the literature (for a good review on this issue see Kelo, Teichler, and Wachter 2006).

Student Mobility Factors

From the student's perspective, student mobility is not without its challenges. For example, considerable research, investigating international students' experiences, has highlighted problematic areas associated with; access to accommodation and financial support (Khawaja and Dempsey 2008), learning adaptation (Tran 2011), language and cultural barriers (Andrade 2006), faculty responsiveness (Trice 2003), expectation discrepancies (Khawaja and Dempsey 2008), service quality perceptions (Russell 2006), social environment adaptation, social support and coping strategies (Khawaja and Dempsey 2008; Lacina 2002), and more. Many universities have elected to implement the International Student Barometer survey as a means of gaining insight into the experiences and expectations of international students (Varghese and Brett, 2011, Bone, 2011). These findings emphasise the unique characteristics pertaining, specifically, to the international student experience, as opposed to the domestic student experience.

In addition, the inherent differences in motivations of student groups (i.e. international versus domestic) must also be acknowledged if HE institutional strategic responses are to be at all effective. Notably, Mazzarol and Soutar (2002) provide a framework of push and pull factors that influence an international student's decision to

enroll in a foreign HE institution. Identified push factors include; perception of superiority of overseas study programs; an ability to gain entry into home country study programs; desired study program unavailable in home country; desire for a better understanding of the “West”; and intention to migrate after graduation (Mazzarol and Soutar 2002). Pull factors include reputation and knowledge of host country; reputation of quality of host institute and teaching; host institutional alliances; host institution’s alumni; student enrollment numbers; flexibility in recognised student’s existing qualifications (Mazzarol and Soutar 2002). In addition, perceived barriers to enrolling in a foreign HE institution include direct costs such as cost of educational fees and cost of living; costs associated with travel; visa requirements in relation to student work provisions; geographic distance; level of crime in host country; racial discrimination in host country; credit transfer arrangements; and whether or not an established international student community already exists within the HE institution (Mazzarol and Soutar 2002). Thus, to assume homogeneity within the student body is wrought with danger as international students face very different challenges, and have different needs, wants and motivations as opposed to the domestic student body.

Internal Environments of HE institutions

In order to completely understand the dynamics of the exchange that takes place between international students and their service-provider (HE institutions), it is important to have a rudimentary understanding of what it is that HE institutions “sell” (the offering) and how they go about delivery their offering to their customers (i.e. students). The HE offering involves the core service offering (i.e. the HE learning experience) and the supplementary service offerings (e.g.. payment facilities, support programs etc.) facilitated by the interaction of people (administrative and academic employees), processes (learning and

administrative) and physical evidence (buildings and facilities) (Gronroos 1990). In other words, to enable strong market performance, such as international student satisfaction, perceived value, retention, market share, etc. (Homburg and Pflesser 2000), HE institutions must deliver not only in pedagogical terms, but also on the peripheral offerings (supplementary and facilitating aspects) (Oliveros et al. 2010).

Taking this HE service framework, Oliveros et al (2010) conducted a case study analysis of HE in Canada using “Activity Theory (AT) to shed light on the service encounter as a contradictory, political locus of tensions between providers and customers (internal and external) in the Higher Education (HE) market” (p. 355). AT was considered an appropriate theoretical lens for analysing power (division of labour), political behaviour (rules) and how these interact to create a value exchange in HE institutions (Oliveros et al. 2010). They concluded that HE institutions suffer from the absence of a “service culture” in that they are “not seen as a whole system that works to solve problems, but rather as a group of different individual functions, hindering value actualization in service encounters. This also creates inner contradiction for employees of feeling as a part of a team or as mere wage earners who are carrying out isolated functions” (Oliveros et al. 2010, p. 366). On this basis, we suggest that HE institutions, that suffer from a “silo mentality” maybe be jeopardising market performance, particularly in the context of international students, given the multitude of contact points (i.e. service encounters) that students experience in organising and orchestrating their study abroad.

ISR and Marketing Strategy

In recent years, HE marketing research has seen substantial research development (Stachowski 2011). In particular, research areas such as consumer behaviour (Hemsley-

Brown and Oplatka 2006) and relationship marketing (Helgesen 2008; Oplatka and Hemsley-Brown 2007) have received considerable interest. Other areas, however, such as the recruitment of international students (Ross and Grace 2010) and investigations from the perspective of the education provider (Hemsley-Brown and Oplatka 2006), still remain largely inchoate. This situation has led to the call for a greater research focus on market orientation in the educational marketing literature (Hemsley-Brown and Oplatka 2006). Furthermore, given that international students are characterised by unique needs, wants and motivations, over and above those of domestic students, the study of market orientation within the ISR context is well justified.

Market Orientation

The term *market orientation* was conceptualised to reflect the practical implementation of the marketing concept (Kohli and Jaworski 1990) in that it reflects the imperative for an organisation to be market-focused (Lafferty and Hult 2001). The premise of the marketing concept is that organisational performance is dependent on the ability to identify and satisfy customer needs (Kirca, Jayachandran, and Beardon 2005), and a positive relationship between market orientation and organisational performance is well established (Narver and Slater 1990).

Two market orientation conceptualisations dominate the literature (Homburg and Pflesser 2000), one which adopts an information-processing perspective (Kohli and Jaworski 1990) and one which adopts a cultural perspective (Narver and Slater 1990). The information-processing perspective models market orientation as evolving from the *generation, dissemination* and *response to* marketing information, hence its label. The cultural perspective emphasizes market orientation as the ability to learn about customers

and competitors in order to respond to trends and also be aware of and respond to environmental influences. This study adopts the latter conceptualisation. As marketing is not always viewed favourably within HE institutions (Oplatka 2009), it may be that a specific understanding of market orientation is not apparent within such institutions. As such, market orientation may be an implicit organisational characteristic rather than an explicit behaviour. On this basis, and due to its previous use in the educational context (Hammond, Webster, and Harmon 2006), Narver and Slater's (1990) market orientation model is adopted as the theoretical framework for this study.

Market Orientation Model – Cultural Perspective

Narver and Slater (1990) conceptualise market orientation as comprising three dimensions, *customer orientation*, *competitor orientation* and *inter-functional coordination*. *Customer orientation* involves developing an understanding of the needs of current and future customers (Narver and Slater 1990) with a view to achieving long term customer satisfaction (Deng and Dart 1994). For HE institutions involved in ISR, this involves developing an understanding of why international students seek to study abroad or why they seek to attend a specific country or institution. It also involves wider activities such as being aware of current economic developments and anticipating future developments in international student source countries.

Competitor orientation involves understanding short term and long term strengths and weaknesses of current and potential competitor organisations (Narver and Slater 1990). Therefore, HE institutions need to develop an understanding of the ISR strengths and weaknesses of competitor institutions. Finally, *Inter-functional coordination* refers to the

creation of superior value for target customers as being a “whole of organisation” responsibility rather than the responsibility residing in a single department (Narver and Slater 1990). In terms of HE institutions this is an important factor, as students will experience multiple points of contact with various departments within the HE institution and it is vital that a positive interaction with one department is not devalued by negative interactions with other areas of the HE institution. For example, a student who is particularly impressed with the level of teaching quality may recommend an institution or a course to potential students. Conversely, students who experience procedural or administrative difficulties may feel that the quality of their HE experience is diminished and, as a result, may be less likely to actively promote an institution.

The exploration of market orientation in the context of HE is a developing area of research at both a conceptual and operational level. However, within the literature, there is dissent as to the role of market orientation in HE institutions with some arguing that it plays a crucial role in relation to performance (Hemsley-Brown and Oplatka 2010; Oplatka and Hemsley-Brown 2007), while others question its appropriateness (Khalifa 2010; Ramachandran 2010; Svensson and Wood 2007). At an operational level, Owlia and Aspinwall (1996) find market orientation to be a way in which to link institutional objectives with the needs of students and employers, primarily because it forces the institution to focus on customer identification. This concept is supported by Lindsay and Rodgers (1998), however, they warn that, in the case of some institutions, this can lead to the adoption of a sales orientation. However, research supports the notion that, where departmental emphasis and prestige, combined with teaching staff cohesion, support the development

and implementation of a market orientation (Flavian and Lozano 2006) this, in turn, enhances institutional innovation (Wasmer and Bruner 1999).

Market Orientation and Performance

Examining the relationship between market orientation and performance is a relatively well-established research theme with most empirical research activity occurring since the 1990s (Goldman and Grinstein 2010). The fundamental premise of this theme is that a positive, direct, significant and robust relationship exists between market orientation and organisational performance (e.g., Kohli and Jaworski 1990; Narver and Slater 1990). In the context of overall HE institutional performance, this notion has certainly been supported (Caruana, Ramaseshan, and Ewing 1998; Hammond, Webster, and Harmon 2006; 2009). However, in the context of student recruitment, while Stewart (1991) and Bush, Ferrell and Thomas (1998) argue for a positive relationship between market orientation and overall student recruitment of business schools, there has been little consideration given to international student recruitment. This is a significant oversight, given that recruitment of international students requires not only an understanding of students' individual needs and wants, but also of the perceived physical and psychological hurdles that significantly impact on the success, or otherwise, of an institution's international student recruitment and retention strategies.

Given the specificity of this domain (i.e. ISR) within the larger organisational context, it is important to consider how a market orientation will manifest itself in relation to ISR performance. As previously discussed, at a broader institutional level, the relationship between market orientation and overall organisational performance has been established. However, as the premise of market orientation is to integrate strategic objectives with

customer needs and wants, it is important to consider the performance measures that will indicate the success (or not) of such strategies. Homburg and Pflesser (2000) advocate that performance outcomes of market-oriented organisations fall into two categories, i.e., market performance and financial performance. Market oriented strategies are argued to have a direct effect on market performance and an indirect effect on financial performance, given that market performance has been well established as an antecedent to financial performance (Homburg and Pflesser 2000). Defined as “the effectiveness of an organization’s marketing activities” (Homburg and Pflesser 2000, p. 452), market performance is operationalized as customer satisfaction, customer value, customer retention, market share and comparative impetus with competitor’s activities and performance (Homburg and Pflesser 2000; Kohli and Jaworski 1990). Translating this notion in the context of ISR, we suggest that ISR departments, that effectively adopt and implement a market orientation , will realise benefits through increased satisfaction and value creation for international students, increased recruitment and retention of international students and enhanced market share and growth within the international education market-place. Given these benefits, an in-depth examination of market orientation, in the context of ISR, is further supported.

Research Questions

Market orientation research has predominantly focused on market orientation as a single construct reflected by its three dimensions (i.e. customer, competitor and inter-functional orientation) (Caruana, Ramaseshan, and Ewing 1998; Ellis 2006; Shoham, Rose, and Kropp 2005). Despite a recommendation to consider the individual effects of the market orientation dimensions (Narver and Slater 1990), there are only a few studies that have

adopted this approach. They include Han, Kim, and Srivastava (1998) who find *customer orientation* to be the dominant dimension in a sample of Australian manufacturing and service firms and Hemsley-Brown and Oplatka (2010) who have a similar finding for a sample of English and Israeli academics. An investigation at a component level potentially reveals a greater understanding of market orientation, however, there exists a paucity of studies in which market orientation is investigated at this level. Given the nuances of ISR previously discussed, this study focuses on the examination of the individual dimensions of market orientation. In particular, the degree to which each MO dimension is adopted by ISR departments and how these dimensions affect the market performance associated with ISR, provides the focus for this study. Thus, we propose the following broad research questions:

RQ1: To what degree are the following market orientation dimensions adopted by ISR departments in HE institutions (a) customer orientation, (b) competitor orientation and (c) inter-functional orientation.

RQ2: To what degree do the following market orientations dimensions adopted by ISR departments in HE institutions influence ISR market performance (a) customer orientation, (b) competitor orientation and (c) inter-functional orientation.

Figure 1 outlines the constructs of interest in this study and the proposed relationships being explored.

---- **Insert Figure 1 Here** ----

Research Design

A major consideration in regards to the research design was the issue of respondent anonymity. This research was fully funded and conducted by an Australian university, and the project involved the gathering of strategy and performance information from other universities, operating within the same competitive marketplace. Given the commercially sensitive nature associated with the data collection phase, we anticipated that, unless we could assure respondents of complete anonymity (i.e. whereby themselves and their organisations could not be identified in the data), our data collection efforts would be ineffective. On this basis, the research design of this study was developed with this issue clearly in mind.

Data Collection Method

An online survey (administered via email) was deemed to be the most efficient and appropriate method of data collection, over and above that of mail or telephone administration. This decision was based on two key issues; (1) the required anonymity of respondents (as discussed above) negated the use of telephone surveying, and (2) as email addresses were readily available through databases and university websites, data collection via email was considered a more direct and efficient method, over mail surveys.

Furthermore, the efficiency, in terms of cost and time, and the elimination of potential data entry errors (associated with mail and telephone surveys) provided further rationale for the use on an online survey (administered via email).

Survey Composition and Measurement

The first question on the survey served as a screening question i.e. “Does your institution accept enrolments from international students?” Respondents answering “no” to this

question were automated thanked for their time and exited from the survey. The following questions were included so that an adequate description of the resulting sample could be gleaned. However, we were mindful, when preparing these questions, that we did not include any questions that were too specific to individual institutions, thus reinforcing anonymity to respondents.

- In what year did your institution start to actively recruit international students?
- If you no longer recruit, give the final year that your institution actively recruited?
- What is your current total international student population?
- What is your current student population (international + domestic)?
- Are you aware of your current institution having specific market strategies for international student recruitment?

The next section of the survey included questions to measure the dimensions of market orientation (drawn from Narver and Slater's (1990) market orientation scale), followed by the questions regarding perceived ISR market performance. This resulted in *customer orientation* (CUST) being measured via 5 items, *competitor orientation* (COMP) measured by 3 items *inter-functional orientation* (INTER) measured via 6 items. The measures taken from Narver and Slater (1990) are reflective measures, in that measurement items are expressed as a function of the construct (Bontis 1998).

In relation to market performance, the most appropriate way in which to operationalize this construct was deemed to be via perceptual measures. It was anticipated that survey respondents may not have access to, or be forthcoming with, operationally

defined objective performance measures (Homburg, Krohmer, and Workman 2004), nor are such measures always relevant in organisations such as educational institutions (Herman 1990). While perceptual performance measures and operationally defined measures have been consistently found to be highly correlated (thus supporting the reliability and validity of adopting this approach) (Dess and Robinson 1984; Ketokivi and Schroeder 2004), they are not without their limitations.

The use of perceptual performance measures can be inaccurate and biased. However, as Ailawadi, Dant and Grewal (2004) pointed out, “neither random inaccuracy nor systematic mean-shifts...in perceptions of performance pose a serious problem for the researcher who wishes to study the relationship of performance with other marketing variables” (p. 3). The greatest problem of using perceptual measures of performance and antecedent marketing variables is the potential for common-method bias (Bagozzi and Yi 1991; Philip M. Podsakoff et al. 2003). Common-method bias occurs when perceptual measures are collected from the same respondent via the same measurement method. Item and scale format and respondent response style, combined, can over-inflate the correlation between two variables (Baumgartner and Steenkamp 2001)¹.

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¹ **Analytical Considerations:* Given the choice of perceptual measures for ISR market performance, it was important to acknowledge the potential for data contamination through CM bias (as previously discussed). Furthermore, the use of formative measures for perceived market performance requires the use of appropriate analysis (which differs to that of reflective measures). Both of these issues are addressed in the “Analysis and results” section.

Notwithstanding the limitations of using perception measures, *market performance* (PERF) was measured via 6 items that were adapted from a perceptual performance scale from Homburg and Pflesser (2000). To measure perceived market performance, we used formative measures i.e. measures that *form together* to indicate an overriding construct (Bontis 1998). Along similar lines to Homburg and Pflesser (2000), we operationalize ISR market performance as being indicated by a combination of perceived student satisfaction, student value, student retention, student attraction, growth and market share, in comparison to that of the competitors' ISR market performance. Finally, all items were measured using a 7-point Likert scale ranging from (1) strongly disagree to (7) strongly agree, and are shown in Appendix 1.

Survey Administration

In order to access eligible respondents (i.e. ISR practitioners in Australian Universities), a database of email addresses was compiled from the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS) (Department of Education Employment and Workplace Relations 2008) and institutions' websites. This exercise resulted in 610 email addresses of ISR practitioners in Australia being gathered, thus, providing the sampling frame for this study. An invitation to participate in the survey (containing information about the research and the web link to the survey) was emailed to the entire sampling frame and, to improve the response rate, follow-up emails were sent five days and ten days after the initial invitational email (Ilieva, Baron, and Healey 2002). To further ensure that respondent identities were protected, IP addresses were automatically deleted upon receipt of survey responses. The resultant sample of useable surveys was 159, representing a response rate

of 26.1%. Respondents identified their ISR job title as Manager (45%), Director (31%), Officer (13%), Co-ordinator (7%) and Unknown/withheld (4%). To address non-response bias, a sample of 31 late-responders was used for non-response testing. Data from the original sample and the late-response sample were then compared by conducting t-tests on the mean scores of the constructs. No evidence of mean score differences were found, thus we conclude that non-response bias was not evident in the data.

Sample Profile

At HE institutions, from which a usable response was attained, international student populations ranged from 400 to 12851 (M = 3550, mean = 4521) and comprised 2.5% to 38.7% of total student populations (M = 15.4%, mean = 16.3%). Additionally, institutional ISR experience ranged from 4 to 57 years (M = 19.7 years, mean = 19 years). Table 1 clearly shows that the majority of the sample commenced recruiting in the 1980s and 1990s (i.e., 85%). While there was a reasonably even spread of universities across all student population categories, predominantly *international* student populations were below 8 000 (i.e. 84%). All respondents nominated that their institutions were currently actively recruiting, however, 4% of the sample were either unsure, or were not aware, of the marketing strategies employed in the recruitment of international students.

---- **Insert Table 1 Here** ----

Analysis and Results

The analysis stage of the study followed a three-step process i.e. (1) preliminary analysis (data reduction and validity testing), (2) mean difference tests via paired sample t-tests and (4) structural model testing via Partial least Squares (PLS).

Preliminary Analysis (Data Reduction)

In order to establish appropriateness of the data for the intended analysis, preliminary analysis included tests of normality, correlation analysis, factor analysis and reliability analysis. This process resulted in 3 items being excluded from the analysis due to poor correlations and factor loadings. The scale items, ready for use in hypothesis testing and which represent uni-dimensional constructs (CUST, COMP, INTER, PERF), are shown in Appendix 1, along with their respective factor loadings. In addition, prior to the main analysis, data were tested for construct validity, convergent validity and discriminant validity and the results indicated that all items loaded appropriately on to their respective factors (and not that of others) as is required for the intended analysis (Hair, Bush, and Ortinau 2003).

Finally, given the limitations of using perceptual performance measures (as previously noted), it was important to test for CM bias. This test was conducted in accordance with Harmon's one factor test (Igbaria et al. 1997; Philip M. Podsakoff and Organ 1986) where all items, presumably measuring a variety of different constructs, were subjected to a single factor analysis. Using this approach, 4 factors were extracted with eigenvalues greater than 1. The first factor explained 32.7% of the variance and the total variance explained was 82.8%. As there was not one factor (or a common factor underlying the data), and as the majority of the variance was not accounted for by one general factor, common method bias was not evident.

Difference Testing (Paired Sample T-Tests)

Composite variables for the three market orientation dimensions (CUST, COMP and INTER) were computed via the use of factor weight scores, the means and standard deviations of which appear in Table 2. In order of strength, the means ranged from 6.38 (CUST), 5.30 (COMP) to 5.24 (INTER). The variables were then subjected to a series of paired sample t-test to determine if significant differences were evident. As shown in Table 2, CUST was significantly higher than both COMP and INTER, however, there was no significant difference between COMP and INTER.

---- **Insert Table 2 Here** ----

Structural Model Testing

The paths of the structural model were tested using Partial Least Squares (PLS) analysis. In PLS, variables (predictor, moderator and dependent) are viewed as latent constructs and are measured indirectly via multiple indicators (Chin, Marcolin, and Newsted 2003) as well as by antecedent and consequent constructs (Bontis 1998). Both reflective and formative indicators can be specified in the model (Fornell and Cha 1994). Reflective indicators imply a construct where the items are expressed as a function of the construct (e.g., in this study – customer orientation, competitor orientation and inter-functional co-ordination) while formative indicators imply a construct where the items form the construct (e.g., in this study – perceived market performance) (Bontis 1998). As PLS is a SEM analytical procedure that accommodates models where both reflective and formative measures are used (Diamantopoulos 1999), this choice of analysis is well justified.

Table 3 shows the results pertaining to the structural paths between each of the independent variables (CUST, COMP and INTER) and the dependent variable (PERF). All

path coefficients were significant as the critical ratios were greater than ± 1.96 (two-tailed test). INTER exerted the high influence on PERF (path coefficient .37), followed by CUST (path coefficient .27) and COMP being the lowest (path coefficient .26). The AVA represents the predictive power of the structural model (Fornell and Bookstein 1982) and a model is said to have predictive power if the AVA is above .10. In this instance, the AVA was .46 indicating that the predictive power of the individual paths and structural model provide evidence of its theoretical soundness.

---- **Insert Table 3 Here** ----

Discussion

The findings of this study have produced some interesting outcomes. The results indicate that ISR departments of HE institutions predominantly adopt a customer orientation over, and above, that of a competitor or inter-functional focus. For HE institutions undertaking ISR, customer orientation involves developing an understanding of the needs of current and future international students (Narver and Slater 1990) with a view to achieving long term satisfaction (Deng and Dart 1994). No doubt such an understanding of student needs is important, however, the findings also indicate that, in order to achieve superior ISR performance, having a customer orientation is not enough. Our findings demonstrate that it is an inter-functional orientation that exerts the most influence on ISR market performance in comparison to a customer or competitor orientation. In other words, while ISR departments demonstrate strategic characteristics associated with the adoption of a market orientation (by way of focusing on customer needs), they are not capitalising on their performance potential which can be significantly enhanced through the creation of inter-

functional synergies. The implications of our findings emerge as we scrutinize them within the contextual idiosyncrasies of (1) HE institutions as service providers, (2) international students as service customers, and (3) a systems approach to HE.

HE Institutions as Service Providers

While the findings suggest that all three dimensions of market orientation (i.e. customer, competitor, inter-function) do have a significant impact on ISR performance, an inter-functional orientation has the greatest influence on performance. In contrast to previous research supporting the notion that customer orientation is the dominant factor in relation to market orientation (Han, Kim, and Srivastava 1998; Hemsley-Brown and Oplatka 2010), in the context of ISR, it is the inter-functional capabilities that are important. As previously stated, inter-functional coordination refers to the creation of superior value for target customers as being a “whole of organisation” responsibility rather than the responsibility residing in a single department (Narver and Slater 1990). Our findings reinforce this notion, in that ISR departments having knowledge of the needs and wants of international students (customer orientation) and the external competitive environment (competitor orientation) lays the foundation for enhanced international market performance, but it is the translation of this knowledge into actions (inter-functional co-ordination) that will truly facilitate the achievement of strong market performance. Our results clearly indicate that inter-functional co-ordination was rated lowest of the market orientation dimensions among the surveyed universities in our study. This result is in line with the findings of Oliveros et al. (2010): *“We demonstrated that contradictions among the doers (subjects and community) with its organizational rituals, procedures and the way in which solutions are separated by task specialization restrain action and collaboration in service encounters in the HE studied*

in Colombia. Furthermore, the way in which rules are created and the flow of those created rules from the ideological system to the remaining activity systems in the organization, hinder collaboration since rules are not properly shared with the entire community causing lack of recognition of them and hindering value actualization in service provision” (p. 366).

International Students as Service Customers

As previously discussed, there are numerous entry “barriers” faced by international students and, as a result, it is these factors that ultimately will determine whether consumption takes place or not (i.e. achieving ISR objectives). While it is an education (core service) international students are “buying”, it is the facilitation of support mechanisms (supplementary services) that are instrumental in enabling the “exchange” to take place (Gronroos 1990). For example, the international student must interact with a number of different departments within the institution, and external to the institution e.g., government bodies and agencies. Thus, for the international student, prior to even commencing their education (referred to in marketing as the pre-purchase stage), they have experienced a number of points of contact (within and external to the institution). The importance of these points of contact on the quality of the overall experience (as perceived by international students), collected through instruments such as the International Student Barometer, is well documented (Varghese and Brett 2011). On this basis, it is imperative that assistance and information relayed to the international student at these various contact points is consistent, supportive and not conflicting. Institutions, lacking an inter-functional orientation, may well experience difficulty in achieving the dissemination of consistent information and support to international students. The subsequent ramifications will be reflected in their ISR market performance.

A Systems Approach to HE

Contemporary marketing theory promotes organisations as complex service activity systems that allocate resources (operand and operant) in order to partake in the co-creation of value between themselves, customers and external communities (Gummesson 2006; Vargo and Lusch 2004). Essential to enabling mutually beneficial value creation, is the mediating role that artefacts, rules and roles play in facilitating or impeding service provision (Gummesson 2006). Viewing higher educational organisations within this service system framework is gaining momentum in the literature (Hemsley-Brown and Oplatka 2006; Oliveros et al. 2010; Russell 2006; Seeman and O'Hara 2006). Simply stated, HE institutions represent a system of service provision (service provider), aimed and co-creating value with students (customers) through the enabling (or impeding) mechanisms of artifacts (e.g. practices, procedures, teaching materials); the division of labour (e.g. task specialization, job roles, power); and the rules (e.g. cultural norms, organizational guidelines and standards, classroom rules, political behaviour) Oliveros et al. (2010).

Essential to utilizing these mechanisms as “enablers” is the notion of collaboration, whereby the organization operates as a whole (rather than as a collection of groups undertaking individual functions) (Oliveros et al. 2010). Central to collaboration is inter-functional co-ordination, in that it facilitates the sharing of information between HE elements, the open discussion of market trends, student needs and remedies, and the free flow on communication, etc. Our findings clearly show that inter-functional co-ordination has a significant impact on ISR market performance, thus accentuating its enabling role in achieving performance goals, yet it is something that HE institutions, traditionally, do not do well (Oliveros et al. 2010). This may be due to a failure to recognize changes in the business

environment or organisational characteristics such as inflexible and hierarchical structures and processes resulting in a silo mentality (Shattock, 2003, Taylor, 2010).

However, in order to remain sustainable in the international education arena, HE institutions need to establish mechanisms that enable the free flow of information between stakeholder groups so that everyone has knowledge that is consistent and accurate across departmental/institutional boundaries. Creating synergies through effective information sharing between all personnel involved in the recruitment of international students (regardless of proximity), ultimately, can provide a competitive advantage that is predominantly established on the basis of diminished entry barriers (both physical and psychological).

Recommendations for Future Research

The findings of this study have prompted the following recommendations for future research in the areas of student recruitment, sub-dimensional approach to research, ISR performance, and comparative research.

Student Recruitment: Further marketing studies in relation to HE institutions are warranted as higher educational institutions continue to operate in the competitive international marketplace. On the home front, it is equally important to continue to attract domestic students (REF), however, this group does not face some of the complex challenges to entry that international students do (REF). Therefore, the study of the market orientation dimensions in relation to domestic recruitment may well produce differing results and this should be investigated. For example, it may be that, for domestic recruitment, a customer orientation and/or a competitor orientation exerts more impact on performance, purely on the basis of closer proximity. Although, this notion is purely speculative, given the findings

of this study, similar research in the domestic recruitment domain may provide new insights.

Sub-Dimensional Approach to Research: The dimensional examination of market orientation, in the context of ISR performance, has provided some interesting results. In making an assessment of the impact of each individual market orientation dimension (i.e. customer, competitor and inter-functional orientations) has proven to be much more informative than an examination of market orientation, in ISR recruitment, as a whole. Thus, it is surprising that there is scant market orientation research has not also benefited from this sub-dimensional approach. Future research could benefit from this approach in an attempt to “weed out” contextual differences and the associated marketing ramifications. Similarly, studies focussing on individual dimensions of other multi-dimensional constructs that may inform ISR strategy, such as organisational learning orientation and perceived value, may also be of value in relation to ISR and higher education, in general.

ISR Performance: Further research into the effect of market strategy (such as market orientation) on ISR market performance can also benefit by taking a sub-dimensional approach to the measurement of market performance. Our study used a global formative construct of perceptual measures (justified and limitations noted within this article). Future research could adopt one or two different approaches (or a combination of both). For example, the gathering of objective measures, relating to market share, satisfaction ratings, retention, growth and recruitment statistics would be useful in further examining the antecedents of ISR market performance. In addition, rather than treat market performance as a global construct (as we have), separate multi-item scales could be used to measure each facet of market performance (i.e. satisfaction, value, retention, recruitment, growth

and market share), individually, in order to pin-point the effect of antecedent variables on individual aspects of market performance. This could be achieved by the use of both subjective and objective measures and would provide further insight into ISR market performance.

Comparative Studies Based on Institutional Characteristics: The present study was limited in the type of institutional demographic data collected (as previously justified in the “Research Design” section. However, future research should attempt to investigate possible differences in ISR market orientation and its relationship to ISR market performance, across HE institutions differing on the basis of, for example, institutional size, international student body, and country of operation, to name a few. Comparative research, in this area, would further enhance the international education literature and benefit future ISR practice.

Limitations

The limitations of any study highlight aspects which are important to acknowledge. Rather than to lessen the impact of the findings, the limitations of this study are discussed to clearly establish boundaries and serve to identify future avenues for research. Firstly, any survey-based method, including that adopted in this study, involves some degree of measurement error. For example, the elicitation of a scale measurement depends on the respondent’s ability to accurately report their level of agreement with the survey statements regarding their ISR department’s market orientation, and perceived market performance. However, in acknowledging the limitations of perceptual measures (as discussed in the “Research design” section, every effort was made to test for non-response bias and CM bias. The results of these tests indicated that bias was not evident in the data.

Secondly, as data collection was conducted in Australia, issues surrounding the generalisability of the findings beyond this specific geographical region must be considered. However, as Australia is ranked within the top five English speaking destination countries, in terms of numbers of international students (AEI 2007; Skilbeck and Connell 2006), it is proposed that the findings may be effectively generalised within other countries involved in the recruitment of international students. However, future cross-country research should test this notion.

Thirdly, this study does not explore the reasons as to why HEIs recruit international students. However, it is considered that a variety of reasons exist including income generation (Caluya et al., 2011), internationalization outcomes (Woodfield, 2010) and skilled migration (Ziguras and Law, 2006). We acknowledge that these reasons may have an impact on the specific market orientation of an institution. Further research is needed to explore the nature and relationship of these potential impacts.

Conclusion

HEIs have looked to the recruitment of international students as a strategic response to reductions in government funding (Long, 2010) as well as achieving greater diversity in the student cohort (Ergron-Polak and Hudson, 2011). The international student recruitment domain is argued to be complex comprising influences from government policy enablers, student mobility factors and institutional internal environments. To best manage these influences, and achieve strategic institutional performance objectives (organisational performance), it is argued that HEIs require a market orientation comprising a customer dimension (customer orientation), competitor dimension (competitor orientation) and

internal dimension (inter-functional co-ordination) (Narver and Slater, 1990). A positive and robust relationship between market orientation and organisational performance has previously been established (Kohli and Jaworski, 1990, Caruana et al., 1998). The results of this study reveal that the manner in which market orientation is currently reflected in ISR practices does not impact on performance to its full potential. Knowing what international students want and having knowledge of the competitive environment is not enough to capitalise on market performance in the international education arena. The key to best ISR practice resides within the internal environment of the HE institution (as a whole) where the sharing of information and collaboration across internal divisions facilitates an effective value exchange between the institution and the international student. Until HE institutions realise the barriers to market performance that having traditional bureaucratic structures creates, then their sustainability may well be threatened. Future research in the important area is a must.

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Figure 1: Conceptual Model

Table 1: Description of Sample (n = 159)

Year Began Recruiting	1950s	1%
	1960s	2%
	1970s	0%
	1980s	50%
	1990s	35%
	2000s	3%
	Unknown/Unsure	9%
International Student Population	Less than 2000	17%
	2000 - 3999	38%
	4000 - 5999	15%
	6000 - 7999	14%
	8000 - 10000	8%
	Greater than 10000	8%
Total Student Population	Less than 15 000	19%
	15 001 – 20 000	16%
	20 001 – 28 000	17%
	28 001 – 34 000	17%
	34 000 – 40 000	20%
	Greater than 40 000	11%
Aware of current marketing strategies?	Yes	96%
	No	1%
	Unsure	3%

Table 2: Difference Testing

Variable Pairs	Mean	Stand. Dev.	T-Statistic	df	p-Value
CUST COMP	6.38 5.30	1.01 1.19	9.12	158	.001*
CUST INTER	6.38 5.24	1.01 1.43	11.12	158	.001*
COMP INTER	5.30 5.24	1.19 1.43	0.49	158	.623

Significant difference ($p < .01$)

Table 3: PLS Model Results

DV	IV	Hypothesis	Coefficient	Critical Ratio	R ² / Q ²
PERF	CUST	H1	.27*	3.10	.47/.11
	COMP	H2	.26*	2.73	
	INTER	H3	.36*	5.62	
Goodness of Fit			.22		
Average Variance Accounted For			.46		

* Significant at .05 (two-tailed)

Appendix 1: Scale Items Used In Analysis (with Factor Loadings)

CONSTRUCT	ITEM WORDING	FACT. LOAD.
Customer Orientation (CUST)	An important part of our business strategy is ensuring that the needs of our international students are met after they have enrolled.	.90
	We have a strong commitment to our international students and their families.	.86
	We are always looking at ways to create value for our international students.	.89
	We measure the satisfaction of our international students on a regular basis.	.87
	We encourage comments and complaints from our international students because they help us do a better job.	Item deleted
Competitor Orientation (COMP)	We regularly monitor our competitors' ISR.	.84
	We frequently collect marketing data on our competitors to help direct our ISR plans.	.82
	Our staff who are involved in ISR are instructed to monitor and report on competitor activity.	.86
Inter- Functional Co-Ordination (INTER)	In my institution, ISR information is shared with all departments.	.82
	We regularly have interdepartmental meetings to discuss ISR trends and developments.	.92
	Our staff are involved in ISR regularly discuss international student needs with other departments.	.91
	Our staff are involved in ISR regularly interact with other departments on a formal basis.	.82
	In this institution all departments are involved in preparing international student recruitment business plans and strategies.	Item deleted
	We do a good job integrating the activities of all departments.	Item deleted
ISR Performance (PERF)	Compared to your competitors, your department has performed better in achieving international student satisfaction.	.87
	Compared to your competitors, your department has performed better in providing value for international students.	.87
	Compared to your competitors, your department has performed better in retaining current international students.	.91
	Compared to your competitors, your department has performed better in attracting new international students.	.91
	Compared to your competitors, your department has performed better in attaining desired growth.	.90
	Compared to your competitors, your department has performed better in securing desired market share.	.87