

Exploring the International Student Recruitment Industry through the Strategic Orientation
Performance Model

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Abstract

International education is an important, and expanding, global industry. However, much remains unknown about the international student recruitment (ISR) industry, its key variables and its performance outcomes. This study addresses this lack of understanding by developing and empirically testing a conceptual model which investigates ISR performance indicators. The Strategic Orientation Performance (SOP) Model is proposed as an investigative framework. The model is a conceptual representation of the relationships proposed to exist between market orientation, learning orientation, innovativeness, perceived external market effects and perceived organisational performance.

The study adopted a quantitative methodology using a self-administered questionnaire delivered to ISR practitioners via email. Analysis, via Partial Least Squares (PLS), provided support for the SOP Model in the ISR context.

The SOP Model extends previous orientation-performance models. Additionally, within a discordant body of market orientation literature, this study aligns with one of the dominant paradigms and, thereby, provides a strong impetus for further research. Furthermore,

future research will benefit significantly through the use of the SOP Model as a solid foundation for further discovery in this important research domain.

Keywords

Market orientation, Learning orientation, Innovativeness, International student recruitment, Performance, PLS

Biographies

Mitchell Ross is a lecturer in marketing at Griffith University, Australia. His research interests include marketing strategy, marketing of educational services and market and learning orientation and their impact on performance. He is published in the International Journal of Educational Management and has presented at many national and international conferences.

Debra Grace teaches marketing at Griffith University, Gold Coast, Australia. She holds a Bachelor of Business with Honours in Marketing and Management and a PhD in Marketing. Her research and teaching interests are in the services marketing, branding and consumer behaviour areas. As such, she has a number of publications within journals that have their focus in these areas such as Journal of Service Research, Journal of Services Marketing, European Journal of Marketing, Journal of Retailing and Consumer Services and more.

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Introduction

International students are an important and valued resource for many educational institutions and, as such, international student recruitment (ISR) is an important activity undertaken by educational institutions. Currently, the international education industry annually contributes £8.5 billion to the UK economy, more than \$14.5 billion to the US economy (NAFSA: Association of International Educators 2007) and is the largest service export in Australia (Reserve Bank of Australia 2008). Additionally, 2.5 million international students attended educational institutions in 2004 (UNESCO 2006) and this figure is forecast to exceed 7 million students by 2025 (Bohm et al. 2003). Given the global significance, and predicted future growth of the international education industry, it is surprising that much remains unknown about student recruitment in this industry, its key variables and its performance outcomes. Although the industry has grown rapidly, international education marketing knowledge has not developed at the same pace.

Although comparisons have been drawn between international education and other services (Cambridge 2002), often international education is investigated from the disciplines of psychology, education and economics (Smart & Ang 1992) rather than marketing. However, the investigation of international education from a marketing perspective has not

been without its advocates. For example, Kotler and Murphy (1981) argued the importance of marketing strategies for educational institutions. Yet, by the mid 1990s, Mazzarol and Hosie (1996) reported no evidence of consistent international education marketing strategy, while Pokarier and Ridings (1998) found institutional strategic planning regarding international student recruitment (ISR) to be at a low standard. More recently, Maringe and Foskett (2002) and Maringe (2004) argued that educational institutions are not yet embracing fundamental marketing concepts and called for the adoption of marketing principles by university managers (Ross & Heaney 2007). Reflecting the lack of marketing implementation in the education sector, Hemsley-Brown and Oplatka (2006) found research of marketing within higher education to be undeveloped (Ross & Heaney 2007).

This paper, therefore, responds to the call for more research in this area by developing and empirically testing a conceptual model, within an international education context, which investigates ISR performance indicators. The *Strategic Orientation Performance (SOP) Model*, presented in this paper, makes a unique contribution to the current literature and has significant implications for theory and practice. Consequently, the SOP Model provides a solid platform for future research in this area.

Literature Review

A small body of research considers market orientation within educational institutions (e.g. Caruana et al. 1998; Flavian & Lozano 2006; Oplatka & Hemsley-Brown 2007). Oplatka and

Hemsley-Brown (2007) argue that market orientation has been largely neglected in the educational marketing research genre, and call for this to be redressed in future research projects. Consequently, this discussion initially focuses on this construct.

Market orientation

Market orientation has been, and remains, of considerable interest to many researchers. Although consensus has yet to be reached regarding a precise definition (Gainer & Padanyi 2005), market orientation has been conceptualised as a 'multi-dimensional organizational phenomenon' (Greenley 1995a, p. 47) that reflects the imperative for an organisation to be market-focused (Lafferty & Hult 2001). Two dominant conceptualisations exist within the marketing literature; one based around behaviour resulting from an organisational culture (Narver & Slater 1990) and the other around an organisational process and response (Kohli & Jaworski 1990). These two perspectives have provided the theoretical underpinning for the majority of all market orientation research.

As much of the conceptualisation of market orientation was undertaken in the tangible goods sector, researchers have explored its applicability in the services sector (e.g., Agarwal et al. 2003; Cadogan et al. 2002). Studies investigating market orientation in the education services sector are limited and almost exclusively based around the university sector (e.g., Caruana et al. 1998; Hammond et al. 2006). For educational institutions, market orientation is suggested as a way of linking institutional objectives with the needs of students and

employers because it forces the institution to focus on customer identification (Owlia & Aspinwall 1996). However, Lindsay and Rogers (1998) argue that many higher education institutions tend to adopt a sales orientation rather than a market orientation and, as such, the development and implementation of a market orientation has been fundamentally misconstrued by these educational institutions. Within this limited group of education services studies, none are identified in which market orientation is investigated from the context of international student recruitment (ISR).

The relationship between market orientation and organisational performance has been the subject of considerable research (e.g., Ellis 2006; Rodriguez Cano et al. 2004). Noted by Narver and Slater (1990) and Kohli and Jaworski (1990), and, subsequently, endorsed by many researchers, the relationship between market orientation is argued to be positive, direct, significant and robust across a variety of contexts. The fundamental premise of this relationship is that the strength of an organisation's market orientation has a positive impact on the organisation's performance outcomes. Yet, within the marketing literature the market orientation performance relationship has also been found to be mediated by innovation (Matear et al. 2002) and non-existent (Greenley 1995b).

This type of investigation is also evidenced within the education sector, again from an almost exclusively university context but not from an ISR perspective. For example, both Caruana et al. (1998) and Hammond et al. (2006) noted a strong positive relationship between market orientation and performance for the university sector. To date, studies in other education sectors have not been identified. As a positive direct relationship between market orientation and performance has been established in the literature (e.g., Kohli &

Jaworski 1990; Narver & Slater 1990) and demonstrated in some areas within the education sector, it is anticipated that this relationship will also be evident in ISR. As such, it is hypothesised that:

***H1:** For educational institutions recruiting international students, market orientation has a significant positive effect on ISR performance outcomes.*

Numerous studies have investigated the direct relationship between market orientation and performance. A further construct, innovativeness, has also been investigated as a consequence of market orientation. However, the relationship between market orientation and innovativeness has been less rigorously investigated than the relationship with performance (Han et al. 1998; Rapp et al. 2008).

Innovativeness

Innovativeness involves the degree to which an organisation is receptive to new ideas (Hurley & Hult 1998), as well as its capacity to innovate (Wang & Pervaiz 2004). There is some evidence that market orientation encourages the development of innovativeness (Hult et al. 2004; Jaworski & Kohli 1996) and that the extent of innovativeness is directly and positively influenced by the extent of market orientation (Agarwal et al. 2003; Rapp et al. 2008). A counter argument, however, suggests that a market orientation may potentially

reduce innovativeness by encouraging an organisation to focus on the customer (Atuahene-Gima 1996), rather than encouraging the development of innovative solutions (Jaworski & Kohli 1996). As empirical findings in this area are inconclusive, clearly further investigation of this relationship is required.

Grinstein (2008), whilst supporting a positive relationship between market orientation and innovativeness, finds the relationship to be stronger in highly competitive service environments. As the international education industry is a service industry in which many institutions actively compete for students it is expected that a strong positive relationship between market orientation and innovativeness will be evident in this study. For example, as educational institutions improve their ability to identify customers' needs and competitors' actions regarding international student recruitment (i.e., become more market orientated) they will become more receptive to innovative practices within their institution's recruitment practices. As such, it is hypothesised that:

H2: Market orientation has a significant positive effect on innovativeness for institutions undertaking ISR.

The relationship between innovativeness and organisational performance has been well documented in the literature (Hult et al. 2004). It is generally supported that organisations with a higher degree of innovativeness have the capacity to achieve a competitive

advantage (Hurley & Hult 1998; Kropp et al. 2006) and, consequently, a higher level of performance (Calantone et al. 2002; Rogers 2003). Empirical support for this relationship has also been demonstrated within the ISR marketing literature (e.g., Mazzarol 1998). Mazzarol (1998) noted that the overall innovative capability of educational institutions involved in ISR will directly and positively affect ISR performance outcomes. Given the evidence found by Mazzarol (1998) it is expected that this relationship will also be evident in this study.

H3: Innovativeness in ISR has a significant positive effect on organisational performance.

Slater and Narver (1995) and Baker and Sinkula (1999a, 1999b) argue that to best exploit the benefits of a market orientation, a strong learning orientation is necessary. As such, it is appropriate to include this construct in this investigation.

Learning orientation

Sinkula et al. (1997) conceptualise learning orientation as a set of shared values that gives rise to commitment to learning, open-mindedness and shared vision. Investigations into learning orientation tend to focus on construct conceptualisation (e.g., Sinkula et al. 1997), antecedents and consequences (e.g., Baker & Sinkula 1999a; Farrell 1999) and relationships

with other constructs such as innovation (e.g., Calantone et al. 2002; Lee & Tsai 2005).

Investigations of learning orientation within educational institutions are sparse and tend to adopt either a holistic or pedagogical approach. For instance, Giles and Hargreaves (2006) investigate an organisational model which may sustain the outcomes from a learning orientation within the school sector. Other researchers have adopted a pedagogical focus, to investigate aspects such as the learning orientation of students (e.g., Hoskins & van Hooff 2005; Lonka et al. 2004). No studies have been identified in which the importance of learning orientation to ISR is investigated.

There is strong evidence indicating the existence of a causal relationship between learning orientation and performance (Baker & Sinkula 1999a, 1999b; Farrell 2000). Lumpkin and Lichtenstein (2005) argue that organisations with a strong learning orientation achieve higher levels of performance because they are more capable of recognising and exploiting future opportunities. In the case of education institutions, Austin and Harkins (2008) argue in support of a learning orientation, however, they warn that the environments in which many institutions operate may impede the successful development of a learning orientation. Due to a lack of research, currently, there is insufficient empirical support to determine the potential outcomes that may be achieved as a result of implementing such an orientation (Imants 2003; Thomas & Allen 2006). However, given the strong evidence indicating the existence of a causal relationship between learning orientation and organisational performance, it is proposed that this relationship will be robust for ISR.

H4: For education institutions, learning orientation has a significant positive effect on ISR performance.

A significant positive relationship between learning orientation and innovativeness has previously been demonstrated (e.g., Baker & Sinkula 1999a; Hurley & Hult 1998; Lee & Tsai 2005). Additionally, empirical support is found for innovativeness as a moderator in the learning orientation and performance relationship (Calantone et al. 2002). The innovativeness of an organisation may be enhanced through the ability of learning oriented organisations to understand and learn from a competitive market environment (Calantone et al. 2002). As such, the combined effect of learning orientation and innovativeness may provide an organisation with the ability to more effectively predict future market changes (Baker & Sinkula 1999a). To date, no empirical studies investigating the causal relationship between learning orientation and innovativeness have been identified in the international education marketing literature. However, as the robustness of the relationship has been previously established across a variety of settings, it is anticipated that the relationship will also be robust within the education sector and specifically within the ISR context.

H5: Learning orientation has a significant positive effect on innovativeness for education institutions involved in ISR.

Perceived external market effects

External market effects are considered to impact innovativeness (Child 1997; Mavondo et al. 2005; Tuominen et al. 2004). In particular, environmental uncertainty may be seen as an innovative opportunity (Bstieler 2002) while, in hostile markets, innovation represents a potential means for organisational survival (Han et al. 1998). Despite research findings demonstrating a positive relationship between market environment dynamism and innovativeness (Brown & Eisenhardt 1997; Low et al. 2007), established organisations often have difficulty responding innovatively in a dynamic market due to their entrenched modes of operation (Atuahene-Gima et al. 2006). The dynamic nature of education markets is well supported in the literature (e.g., Lovegrove & Clarke 2008; Marginson & Sawir 2006; Mazzarol & Soutar 2001). However, to date, no empirical studies investigating the relationship between perceived external market effects and innovativeness have been identified in the international education marketing literature. Given the fore-mentioned support there exists strong justification to explore this relationship in the proposed model.

***H6:** For institutions undertaking ISR, perceived external market effects have a significant positive effect on innovativeness.*

Slater and Narver (1994) proposed that environmental effects influence organisational performance and that these effects may become a greater influence on performance than strategy (Lenz 1981). In particular, environmental aspects such as market growth and

extent of market competition may significantly influence performance (Tsai et al. 1991). Tsai, et al. (1991) argue that this is particularly relevant in high growth markets (e.g., international education) in that many other organisations may also be simultaneously entering such markets, thereby potentially increasing the level of competition. The logical existence of a relationship between environmental factors and organisational performance is argued by Jaworski et al. (2002), however this relationship is not empirically tested within the international education sector. A similar relationship is proposed by Mazzarol and Soutar (1999), however, this is also not empirically tested. To date, the relationship between external market effects and performance has not been rigorously investigated in the international education marketing literature.

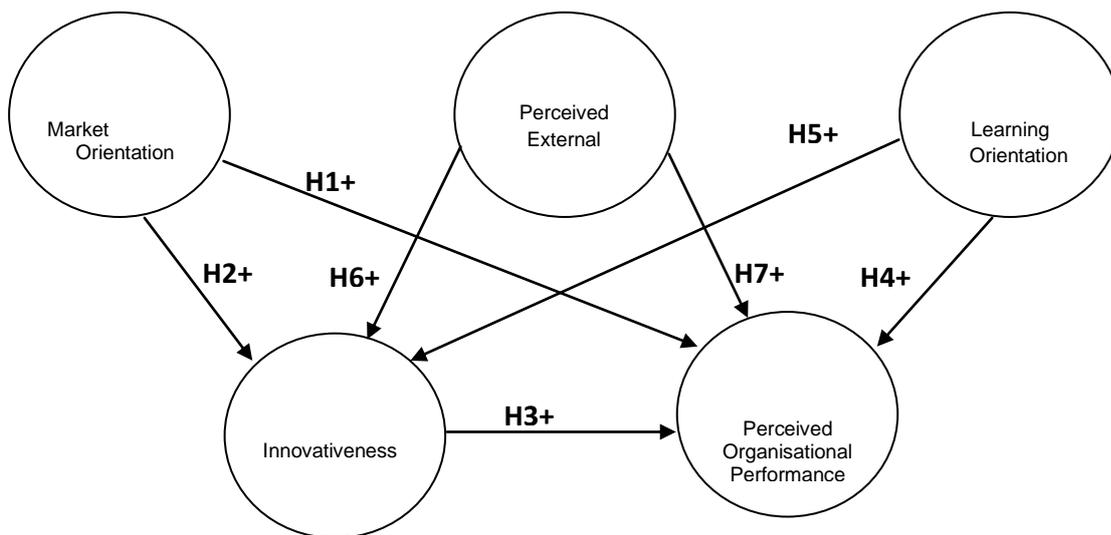
However, it is anticipated that external market effects (e.g., market turbulence, technological turbulence and competitive hostility) will directly affect ISR marketing outcomes within the international education industry. For example, when international education markets are particularly turbulent, such as the SARS epidemic (Feast & Bretag 2005), it may be more difficult for an educational institution to successfully realise their desired international student recruitment outcomes regardless of their market or learning orientations. As such, it is hypothesised:

H7: Perceived external market effects have a significant positive effect on perceived organisational performance in the case of ISR.

Conceptual framework

Figure 1 provides a graphical depiction of the seven hypotheses proposed in this study. As such, the *Strategic Orientation Performance (SOP) Model* provides the conceptual framework upon which empirical testing is undertaken.

Figure 1 Strategic Orientation Performance (SOP) Model



+ indicates positive effect

A re-conceptualisation and extension of previous models (Baker & Sinkula 1999a; Han et al. 1998; Hurley & Hult 1998), the Strategic Orientation Performance (SOP) Model is a visual representation of the relationships proposed to exist between market orientation, learning

orientation, innovativeness, perceived external market effects and perceived organisational performance. In the conceptual model it can be seen that perceived organisational performance is directly affected by market orientation, learning orientation and perceived external effects. The relationship between market orientation, learning orientation and perceived organisational performance is also shown to be mediated by innovativeness.

Methodology

The literature discussed thus far identifies a number of studies that investigate concepts described in the SOP Model. Many of these studies employ quantitative methods to examine hypotheses, test theories and measure the strength and direction of relationships between constructs (e.g., Atuahene-Gima 1996; Baker & Sinkula 1999b; Han et al. 1998; Narver & Slater 1990). These tasks are also undertaken in the current study and, therefore, a quantitative research approach is implied whereby statistical procedures are used to test hypotheses developed from the conceptual model.

Data for this study were collected from Australian ISR marketing practitioners via a self-administered online questionnaire. A purposive sample was considered to be the most appropriate method for this study as only ISR marketing practitioners employed in Australian universities and secondary schools were eligible to participate. A database comprising publicly available email addresses for ISR marketing practitioners from Australian educational institutions 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. Therefore, the resultant sampling frame for this study was all universities and secondary schools in Australia and contained 1008 email addresses. An invitation to participate was emailed to each potential respondent. Follow-up emails to address a potentially low response rate (Dillman 2007) were sent five days and ten days after the initial invitational email (Ilieva et al. 2002).

A response rate of 30.9% (311 returned surveys) was achieved. Of these, 9 responses were deleted due to incomplete returns resulting in a total of 302 responses being used for the data analysis. To address non-response bias 120 non-responders were contacted to determine their interest in completing the survey. This resulted in the collection of a further 73 surveys for non-response testing. A comparison of mean scores between the non-response and original samples revealed no significant differences.

Survey measurement

The research instrument was developed using established scales that had been well validated in the literature. Although the scales identified were appropriate for the measurement of the constructs in this study, they had not previously been used in the context of ISR. For example, the market orientation scale was adapted from Jaworski and Kohli (1993) and the parsimonious scale developed by Gray et al. (1998). The measurement of learning orientation was adapted from Baker and Sinkula (1999b) while the innovativeness scale was adapted from Calantone, Cavusgil and Zhao (2002). The perceived

external market effects scale was adapted Jaworski and Kohli (1993) and Miller (1987).

Lastly, the perceived organisational performance scale was adapted from Olson et al. (2005) and Homburg and Pflesser (2000).

In the context of educational institutions, the most appropriate way in which to operationalise performance and external market effects was deemed to be via perceptual measures. It was anticipated that survey respondents may not have access to operationally defined measures (Homburg et al. 2004), nor are such measures always relevant in organisations such as educational institutions (Herman 1990). Additionally, previous research has demonstrated a high correlation between perceptual performance measures and operationally defined measures, thus supporting the reliability and validity of this approach (Dess & Robinson 1984; Ketokivi & Schroeder 2004).

Sample description

Of the 302 completed responses, 143 (47.4%) were from international education marketers in the secondary school sector and 159 (52.6%) were from international education marketers in the university sector. International student populations ranged from 2 to 12851 (M = 1000, mean = 2365.7) and comprised .25% to 38.7% of institutions' total student populations (M = 9.09%, mean = 10.52%). Additionally, institutional ISR experience ranged from 1 to 57 years (M = 18 years, mean = 16 years).

Analysis and results

Preliminary data analysis progressed through a process entailing correlation analysis and exploratory factor analysis. The rationale behind this process was to ensure construct validity, reliability and uni-dimensionality of the data prior to further analysis. As factor analysis is concerned with the homogeneity of items (Stewart 1981), correlations should exceed .30 (Hair et al. 1998) and should not exceed .90 (Tabachnick & Fidell 2001) to be sufficiently robust and appropriate for factor analysis. Items exhibiting a substantial number of correlations less than .30 or greater than .90 were removed from further data analysis. Following a body of advice to consider multiple criteria regarding the retention of factors (Comrey 1978; Hair et al. 1998), factors with eigenvalues greater than 1 were identified and items with factor loadings less than .50 were deleted. Additionally, items exhibiting cross-loadings greater than .40 were also removed from the analysis (O'Cass 2002). For the present dataset all scales were tested using Cronbach's alpha in order to determine if they were reliable measures of the constructs. Items meeting the alpha criteria of .70 (Hair et al. 1998) were considered reliable indicators of the constructs.

The multivariate analysis technique partial least squares (PLS) was used to undertake the empirical assessment of the structural model in conjunction with its measurement model (Wold 1982). Developed by Wold (1981) as an alternative to the covariance-fitting approach, the component-based PLS approach avoids the problems of factor indeterminacy and improper solutions associated with maximum likelihood LISREL, as well as difficulties associated with violations of multivariate normality (Chin et al. 2003; Fornell & Bookstein

1982; Haenlein & Kaplan 2004). PLS has been found to be highly robust with respect to multicollinearity and skew (Cassel et al. 2000; Chin et al. 2003) as well as with small sample sizes (Chin et al. 2003; Tiessen & Linton 2000). Additionally, PLS is well suited to situations in which the number of variables and the error variances are both large (Chin et al. 2003; Garthwaite 1994).

Due to the appropriateness of PLS for testing theories in the early stages of development (Fornell & Bookstein 1982), combined with an increasing acceptance of the technique within the market orientation and learning orientation literatures (e.g., Andreou & Bontis 2007; Hsu 2007; Menguc et al. 2007), PLS was selected as the analytical tool to obtain the results which address the hypotheses of this study. Specifically, PLS graph (Chin 1998b) was used in this study.

Measure validation

A summary of the standardised loadings (SL), composite reliabilities (CR) and average variance extracted (AVE) for the respective items and constructs can be seen in Appendix 1. Standardised loadings range from .62 to .96 while composite reliabilities are all in excess of the recommended value of .70 (Hair et al. 1998). Additionally, convergent validity is achieved as the AVE for each construct exceeds the recommended value of .50 (Fornell & Larcker 1981).

Prior to conducting hypothesis testing the data were examined for common method bias and discriminant validity. As single sources of information can introduce spurious relationships among the variables, and as this study collected data via the same method (self-report scales), the need to test for common method bias was warranted. This test was conducted in accordance with Harman's one factor test (Igbaria et al. 1997; Podsakoff & Organ 1986) where all items, presumably measuring a variety of different constructs, were subjected to a single factor analysis. Using this approach, ten factors were extracted with eigenvalues greater than 1. The first factor explained 37.26% of the variance and the total variance explained was 79.53%. As the majority of the variance was not accounted for by one general factor, common method bias was not evident.

Having ascertained a lack of common method bias, the data were examined for discriminant validity. The square root of the AVE of the constructs was compared to the inter-correlations between constructs in order to ensure that each construct shared more variance with its own measures than with other constructs in the model. As shown in Table 1, in each case the square root of the AVE was greater than the inter-correlations between the constructs, thus providing evidence of discriminant validity (Chin 1998b; Fornell & Larcker 1981). In addition, item cross loadings were examined with none of the items cross-loading higher on another construct than they did on their own construct. This being the case, the discriminant nature of the data was considered to be validated (Chin 1998b).

Table 1 **Assessment of discriminant validity**

	1	2	3	4	5
Market Orientation	.84				
Perceived External Market Environment	.57	.78			
Learning Orientation	.69	.43	.88		
Innovativeness	.63	.50	.77	.91	
Perceived ISR Performance	.62	.60	.63	.69	.89

Diagonal: Square Root of AVE

Hypothesis testing

Table 2 shows the results pertaining to H1, H2, H3, H4, H5, H6 and H7 and includes the standardised path coefficients between the exogenous and endogenous variables, average variance accounted (AVA) for, R^2 and critical ratios. As the individual R^2 are greater than the recommended .10 (Falk & Miller 1992) an examination of the significance of paths associated with these variables is warranted. Bootstrap critical ratios are found to be greater than 1.64 (Chin 1998a; Grace & O'Cass 2005) indicating that all path coefficients are significant and that all hypotheses are supported. Furthermore, Fornell and Bookstein (1982) argue that a structural model possesses predictive power if the AVA is greater than .10. An AVA of .61 suggests the predictive power of the structural model and provides evidence of the theoretical soundness of the conceptual model.

Table 2 **PLS results**

Predicted variables	Predictor variables	Hypothesis	Path (CR)	R ²	Q ²
Perceived ISR performance	Market Orientation	H1	.13 (2.51)	.59	.52
	Innovativeness	H3	.35 (4.71)		
	Learning Orientation	H4	.15 (2.98)		
	Perceived External Market Effects	H7	.29 (4.49)		
Innovativeness	Market Orientation	H2	.10 (1.93)	.67	.63
	Learning Orientation	H5	.63 (12.19)		
	Perceived External Market Effects	H6	.17 (2.90)		
Goodness of Fit			= .42		
AVA			= .61		

Path = Path Coefficient; CR = Critical Ratio; Bold = Significant

Model fit

In order to further assess the structural model, goodness-of-fit (GoF) and predictive relevance are examined. In the absence of a single GoF measure with PLS path modelling, Tenenhaus et al. (2005) recommend a global GoF as an operational solution. Amato et al. (2004) suggest that, for validating a PLS model, an appropriate global GoF is found by calculating the geometric mean of the average communality and the average R². As such,

$$\text{Goodness-of-Fit (GoF)} = \sqrt{\overline{\text{Communality}} \times \overline{R^2}}$$

The GoF Index (Amato et al. 2004) represents a compromise between redundancy and communality, with the quality of the measurement model being measured by the communality index and the quality of the structural model (taking into account the measurement model) being measured by the redundancy index (Tenenhaus et al. 2005).

The index is evaluated against the GoF criterion for small (e.g., .10), medium (e.g., .25) and large (e.g., .36) effect sizes according to the categorization by (Cohen 1988) and using .50 as a cut-off value for communality (Fornell & Larcker 1981). The computed GoF index for the model is .42 which indicates a good model fit.

In order to calculate predictive relevance the Q^2 statistic using the Stone-Geisser Q^2 test was calculated (Geisser 1975; Stone 1974). This test calculates a measure of how well the observed values are reconstructed by the model and its parameters. A Q^2 statistic greater than zero implies that the model has predictive relevance whereas a Q^2 statistic below zero implies a lack of predictive relevance (Chin 1998b). In the model the Q^2 was calculated at .52 for *perceived* ISR performance and .63 for innovativeness, indicating the model has good predictive relevance. In summary, the model displayed good fit and predictive relevance. Additionally, all hypotheses were supported.

Discussion

The results provide empirical validation for the SOP Model, showing the significance of market orientation, learning orientation and perceived external market orientation for the endogenous construct innovativeness and the significance of market orientation, learning orientation, perceived external market environment and innovativeness for the endogenous construct perceived organisational performance. This discussion considers the relationships between the key constructs within the SOP Model.

Market orientation

The importance of developing a market orientation has been argued by numerous researchers and it has been suggested that the relationship between market orientation and performance is robust across industry sectors (Jaworski & Kohli 1996; Slater & Narver 2000). The results of this study support Kohli and Jaworski (1990) and Narver and Slater (1990), and the hypotheses H1 and H2, in that, market orientation is found to have a significant positive relationship with both perceived organisational performance and innovativeness. For the education sector, this means that for institutions involved in ISR, a significant relationship is found to exist between the market orientation of an institution and its ISR performance. Similarly, a significant positive relationship is found to exist between the market orientation of an educational institution and innovativeness in ISR. Contrary to Grinstein (2008), this relationship is found to be the weakest of the significant relationships rather than the strongest. Further research is required to investigate this difference.

Overall, market orientation is found to be an important construct for educational institutions involved in ISR. These findings add to a discordant body of literature regarding the existence of a direct relationship between market orientation and organisational performance. Numerous researchers report a positive direct relationship between these constructs (e.g., Baker & Sinkula 1999b; Narver & Slater 1990; Ruekert 1992), while others find no significant direct relationship (e.g., Diamantopoulos & Hart 1993; Olavarrieta & Friedmann 2008) and others report mixed results (e.g., Gray et al. 1999; Jaworski & Kohli 1993). The findings generated using the SOP Model position this study in the initial category.

Innovativeness

Deshpande et al. (1993) suggest that organisations with greater levels of innovativeness are able to respond in a more timely fashion to changes in their environment and, thus, generate greater performance outcomes. The results generated in this study indicate that innovativeness has a significant and positive effect on perceived organisational performance, thus supporting hypothesis H3. This finding concurs with much previous research (e.g., Calantone et al. 2002; Hult et al. 2004; Mazzarol 1998). Additionally, Lee and Tsai (2005) found that the direct effect of innovation on performance was significantly larger than that of either market orientation or learning orientation. The findings from the current study support this finding in that the reported path weighting between innovativeness and perceived organisational performance (.35) was found to be stronger than that between market orientation (.13) or learning orientation (.15) and *perceived*

organisational performance. This suggests that for ISR, not only does innovativeness impact performance, but that innovativeness has a greater effect on ISR performance than does market orientation or learning orientation. As such, innovativeness may play a critical role for educational institutions seeking incremental ISR improvements.

Learning orientation

The results indicate that learning orientation has a significant and positive effect on perceived organisational performance, thus supporting hypothesis H4. This finding concurs with research conducted across a wide range of settings (e.g., Baker & Sinkula 1999a, 1999b; Calantone et al. 2002; Farrell 2000). However, no significant direct effect between learning orientation and perceived organisational performance was found by Hult et al. (2004).

Crossan et al. (1999) consider that learning orientation is related to the development of new knowledge within an organisation. In the current study, 50% of all institutions had recruited international students for eighteen years or less (M = 18 years). Within this relatively short span of years these institutions may have needed to develop a considerable body of new knowledge regarding international student recruitment, thereby emphasising the extent of learning orientation within the institution.

Baker and Sinkula (1999a) consider learning orientation to be a more pervasive organisational resource, than market orientation. Mostly, the normal operating environment for educational institutions tends to have a learning focus, and employees within educational environments, generally, understand the relationship between learning and performance. In addition, managers in educational institutions tend to have an educational background, rather than a business background, and often have little experience in a market environment. As such, an orientation focused on learning may be more understandable and readily embraced than a market orientation for many institutions.

The relationship between learning orientation and innovativeness is less researched and understood than that between learning orientation and perceived organisational performance. The results of this study indicate that learning orientation has a significant and positive effect *on* innovativeness, thus supporting hypothesis H5. This is consistent with the findings from Baker and Sinkula (1999a), Calantone et al. (2002) and Mavondo et al. (2005). This suggests that for educational institutions involved in ISR, learning orientation is a key driver of both perceived organisational performance and innovativeness. Without a strong learning orientation institutions may have a lesser ability to achieve desired performance outcomes coupled with a lesser propensity for innovativeness.

Perceived external market effects

Hurley and Hult (1998) argue that innovation is an adaptation mechanism for organisations operating in dynamic environments. However, the relationship between perceived external

market effects and innovativeness has not been rigorously investigated within orientation and performance models. This relationship was investigated in the current study and, for educational institutions involved in ISR, a direct relationship was found to exist between perceived external market effects and innovativeness, thereby supporting hypothesis H6. The current findings lend support to similar findings by Subramanian (1996), however, are contrary to Nohria and Gulati (1997) and Zajac et al. (1991). These studies, however, conceptualise innovativeness as the degree of competition and technological dynamism (Nohria & Gulati 1997), market competition and environmental scarcity (Zajac et al. 1991), and number of innovations, mean time of adoption and consistency with time of adoption (Subramanian 1996). The current study adopts the conceptualisation of innovativeness developed by Kohli and Jaworski (1990) and Jaworski and Kohli (1993) (market turbulence, competitive intensity and technological turbulence) and, as such, it is difficult to make meaningful comparisons with the previously mentioned studies.

Within the literature, the relationship between perceived external market effects and organisational performance has been more thoroughly investigated than the relationship between perceived external environment and innovativeness. However, within the strategic management literature it has long been considered that external market effects moderate the relationship between market orientation and organisational performance (Hambrick 1983; Snow & Hrebiniak 1980) and, as a result, studies that investigate the relationship between external environment and organisational performance mostly tend to do so by considering external environment as a moderating variable (e.g., Jaworski & Kohli 1993; McKee et al. 1989; Slater & Narver 1994). Gray et al. (1999), Greenley (1995b) and

Narver and Slater (1990) provide notable exceptions to these studies in that a direct relationship between external environment and organisational performance is investigated, although Greenley (1995b) concurrently investigates the moderating effect of external environment.

The smaller number of studies investigating a direct relationship between external market effects and performance provided the impetus for the current study in which a direct positive relationship is found to exist between perceived external market effects and perceived organisational performance, thus supporting hypothesis H7. This finding partially supports Gray et al. (1999), Greenley (1995b) and Narver and Slater (1990) who obtained mixed results for the relationship between these constructs. For educational institutions involved in ISR, perceived external market effects significantly impact on the ISR performance of an institution. This impact is irrespective of the marketing or learning orientation or degree of innovativeness. For example, the September 11, 2001 terrorist attacks in the United States and the global SARS outbreak had major negative impacts on international student recruitment for many institutions (Baker 2006; Employment Workplace Relations and Education Legislation Committee 2003; Smith 2003) and were not a result of orientation or innovativeness from any institution or group of institutions.

The Strategic Orientation Performance (SOP) Model

The findings from this study confirm the Strategic Orientation Performance (SOP) Model to be a valid model that can assist in understanding the way in which education institutions

perceive organisational performance in relation to ISR. The SOP Model makes an important contribution to theory in that it extends the conceptual model previously developed by Baker and Sinkula (1999a). A number of important additions and modifications have been incorporated into the SOP Model which are designed to increase the relevance and applicability of the model across a wide variety of both profit and not-for-profit contexts.

The addition of perceived external market effects and the subsequent investigation of a direct relationship between this construct and innovativeness and perceived organisational performance is an important theoretical contribution of the SOP Model. Through testing the direct relationships between these constructs, the SOP Model seeks to identify the extent to which external market effects directly influence the innovativeness and performance of an organisation. Previous research has tended to consider external effects as a moderator of relationships between constructs such as market orientation or learning orientation and performance or innovation, whereas the SOP Model considers external environment to be a direct influence on innovativeness and performance. The SOP Model clearly shows the existence of direct relationships between perceived external market effects and innovativeness and between perceived external market effects and perceived organisational performance. In this sense, the SOP Model expands on current theory by demonstrating a new way of considering the impact of external market effects on the outcomes of innovativeness and organisational performance.

The SOP Model has expanded the model developed by Baker and Sinkula (1999a) by re-working the product innovation construct to innovativeness and re-working the

organisational performance construct to perceived organisational performance. Baker and Sinkula (1999a) conceptualise product innovation as relating to the number, timeliness and success of new product introductions. This is considered too restrictive for the current study and a more holistic approach to innovation is adopted in which the notion of openness to new ideas as an aspect of an organisation's culture is investigated (Hurley & Hult 1998). In developing a measure of organisational performance, Baker and Sinkula (1999a) focus on objective measures regarding sales and profit information. However, in the context of the current study, a more holistic approach to organisational performance is adopted using the subjective measures of overall performance and perceived market performance. Such measures are useful when the respondents may not have sufficient organisational knowledge to accurately assess more objective constructs. Furthermore, the use of subjective performance measures has previously been demonstrated as valid (Dess & Robinson 1984; Gray et al. 1999).

The nomological network of relationships depicted in the SOP Model contrasts that of many researchers in the strategy area who, through a much narrower focus, attempt to develop an understanding of the relationships between fewer variables. For example, the relationship between market orientation and performance was investigated by Gray et al. (1999) and McKee et al. (1989); Calantone et al. (2002) investigated the relationship between learning orientation and innovativeness and performance; the relationship between learning and market orientation and performance was investigated by Farrell (2000) and Baker and Sinkula (1999b); and Baker and Sinkula (2002) investigated the relationship between learning and market orientation and product innovation. While

research such as this has assisted in proposing and verifying variables of importance, they lack the depth of big picture findings such as that provided by the SOP Model. Through the adoption of a more holistic approach in the marketing strategy and strategic orientation domains a more synergistic effect may be experienced whereby the whole is much greater and much richer than merely the sum of its parts.

Limitations and future research

The limitations of any study highlight aspects which are important to acknowledge. 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. Nonetheless, the measurement errors in this study do not appear to be too large or problematic, as indicated by the good reliability results reported.

Secondly, as data collection was conducted in Australia, issues surrounding the generalisability of the findings beyond this specific geographical region must be considered. As Australia is ranked within the top five English speaking destination countries, in terms of numbers of international students (AEI 2007), it is proposed that the findings could be effectively generalised beyond Australia. However, replication of the study in other countries is required in order to determine the veracity of this proposal. The limitations of this study acknowledge and provide "food for thought" for future research in this important area.

It is important that the robustness of the SOP Model be investigated across other education sectors such as the English Language Intensive Courses for Overseas Students sector (ELICOS) or the Vocational Education and Training sector (VET), as well as across differing delivery systems (e.g., offline versus online) thereby potentially providing a more complete picture. In addition, the SOP Model could be used to investigate education sectors from a wider range of countries, thus achieving increased generalisability of the results. Further to this, and in order to build an even greater understanding of this model, the SOP Model could be investigated for its applicability to other industries, both services and non-services.

Conclusion

Global growth in international education continues to be strong and for many institutions international students make an important cultural and economic contribution. For many educational institutions, international students have allowed institutions to maintain and develop academic programs in the face of decreasing government support. However, in this climate of growth in international education, educational institutions face increasing competition for international students as more countries and educational institutions seek to recruit international students.

Despite this level of growth and increasing competition, research investigating international student recruitment by educational institutions is lacking. Of the small number of existing studies, many investigate the university sector to the detriment of all other education sectors. To address this lack of empirical investigation, this study sought to, firstly, develop

a theoretical model of orientation and performance and, secondly, empirically validate the model from the international education practitioner's perspective. The result was the development and empirical validation of the Strategic Orientation Performance (SOP) Model.

In achieving empirical validation, the SOP Model has made a significant contribution to existing strategic orientation theory. The findings of this study are significant and have prompted a number of managerial recommendations concerning ISR in educational institutions. Additionally, the study makes a number of important theoretical contributions including the development of the SOP Model, the consideration of constructs, such as perceived external market effects, in new ways, as well as furthering understanding of market orientation and direct influences on performance. This study, and the SOP Model, provide a perspective on how orientation and innovativeness affect perceived organisational performance within international educational services and open the door for future research in this important research area.

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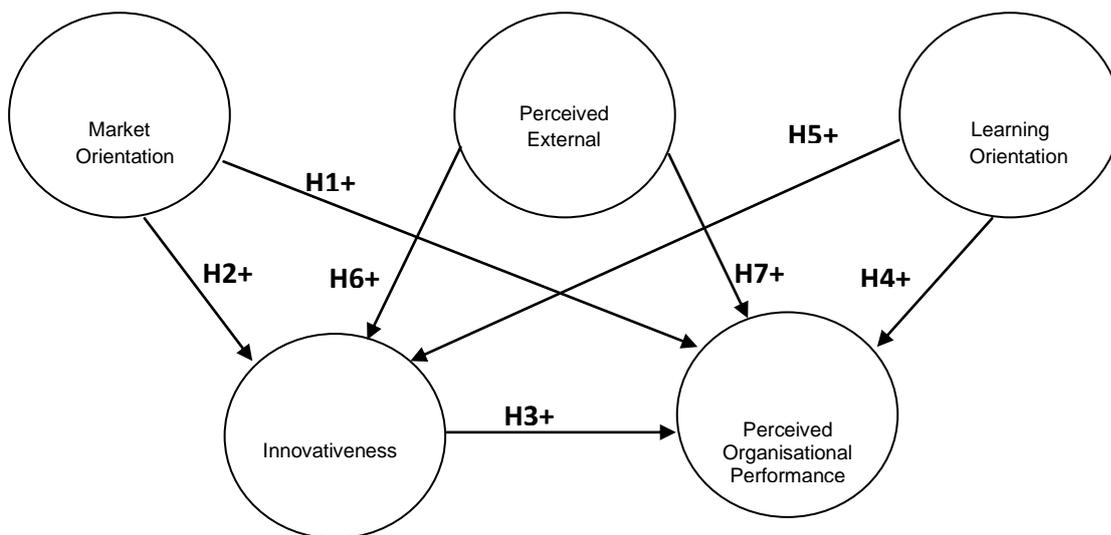
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Figure 1 Strategic Orientation Performance (SOP) Model



+ indicates positive effect

Table 1 **Assessment of Discriminant Validity**

	1	2	3	4	5
Market Orientation	.84				
Perceived External Market Environment	.57	.78			
Learning Orientation	.69	.43	.88		
Innovativeness	.63	.50	.77	.91	
Perceived ISR Performance	.62	.60	.63	.69	.89

Diagonal: Square Root of AVE

Table 2 **PLS results**

Predicted variables	Predictor variables	Hypothesis	Path (CR)	R ²	Q ²
Perceived ISR performance	Market Orientation	H1	.13 (2.51)	.59	.52
	Innovativeness	H3	.35 (4.71)		
	Learning Orientation	H4	.15 (2.98)		
	Perceived External Market Effects	H7	.29 (4.49)		
Innovativeness	Market Orientation	H2	.10 (1.93)	.67	.63
	Learning Orientation	H5	.63 (12.19)		
	Perceived External Market Effects	H6	.17 (2.90)		
Goodness of Fit			= .42		
AVA			= .61		

Path = Path Coefficient; CR = Critical Ratio; Bold = Significant

Appendix 1 Standardised loadings, composite reliabilities and average variance extracted

Construct	Item	SL	CR	AVE
Market Orientation	We encourage comments and feedback from our international students because they help us do a better job.	.80	.95	.70
	An important part of our business strategy is ensuring that the needs of our international students are met after they have enrolled.	.93		
	We have a strong commitment to our international students and their families.	.91		
	We are always looking at ways to create value for our international students.	.84		
	We measure the satisfaction of our international students on a regular basis.	.71		
	We regularly monitor our competitors' ISR marketing efforts.	.69		
	We frequently collect marketing data on our competitors to help direct our ISR marketing plans.	.75		
	Our staff who are involved in ISR are instructed to monitor and report on competitor activity.	.80		
	In my institution ISR marketing information is shared with all departments.	.86		
	We regularly have inter-departmental meetings to discuss ISR market trends and developments.	.83		
	Our staff involved in ISR regularly discuss international student needs with other departments.	.90		
	Our staff involved in ISR regularly interact with other departments on a formal basis.	.89		
	In this institution all departments are involved in the preparation of ISR business plans and strategies.	.62		
	Our ISR department does a good job integrating the international activities of all departments in this institution.	.68		
Our ISR department would implement an immediate response if a major competitor were to launch an intensive campaign.	.87			
Our ISR department is quick to respond to significant changes in our competitors pricing structures.	.82			

Learning Orientation	The basic values of our ISR department include learning as a key to improvement.	.95	.94	.77
	The ability of our ISR department to learn is the key to our competitive advantage.	.83		
	The view in our ISR department is that staff learning is an investment not an expense.	.91		
	Learning in our ISR department is seen as a key commodity necessary to guarantee the survival of the institution.	.78		
	The collective wisdom in our ISR department is that once we stop learning, we endanger the future of this institution.	.83		
	Our ISR department has a well-expressed concept of who we are and where we are going.	.77		
	There is total agreement on the vision of our ISR department across all levels of this institution.	.95		
	All staff are committed to the goals of our ISR department.	.96		
	In our ISR department, staff view themselves as partners in charting the direction of our ISR marketing.	.76		
	Top leadership believes in sharing its vision for our ISR with all staff.	.86		
Innovativeness	The ISR Department in this institution seeks out new ways to do things.	.93	.91	.83
	The ISR Department in this institution is creative in its methods of operation.	.93		
	The ISR Department in this institution is often the first to market with new products and services.	.88		
Perceived External Market Effects	International students' program and subject preferences change quite a bit over time.	.92	.89	.61
	International students tend to look for new programs and subjects all the time.	.87		
	We are witnessing demand for our programs and subjects from new international student markets.	.67		
	New international students tend to have different program and subject needs from those of our existing international students.	.70		
	In the ISR industry, anything that one competitor can offer, others can match readily.	.80		
	Price competition is a hallmark of the ISR industry.	.91		
	Over the past 5 years, the ISR activities of our key competitors have become far less predictable.	.89		
	Over the past 5 years, the ISR activities of our key competitors have become far more aggressive.	.85		
Over the past 5 years, the ISR activities of our key competitors now				

	affect our institution in many more areas.	.69		
	Technology used in ISR is changing rapidly.	.87		
	Technological changes provide big opportunities in the ISR industry.	.85		
	A large number of new product ideas have been made possible through technological breakthroughs in the ISR industry.	.81		
Perceived ISR performance	The overall performance of our ISR department last year exceeded that of our major competitors	.93	.93	.79
	Top management was very satisfied with the overall performance of our ISR department last year	.99		
	Compared to competitors, over the last 3 years, our ISR department has performed better in achieving student satisfaction	.94		
	Compared to competitors, over the last 3 years, our ISR department has performed better in providing value for students	.96		
	Compared to competitors, over the last 3 years, our ISR department has performed better in retaining current students	.90		
	Compared to competitors, over the last 3 years, our ISR department has performed better in attracting new students	.71		
	Compared to competitors, over the last 3 years, our ISR department has performed better in attaining desired growth	.83		

SL= Standardized Loadings; CR = Composite Reliability; AVE = Average Variance Explained