

THE INFLUENCE OF MARKET ORIENTATION BARRIERS ON UNIVERSITY PERFORMANCE: A DEVELOPING COUNTRY PERSPECTIVE

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—Abstract —

Universities of technology are an emergent concept in the South African higher education landscape. However, they face a myriad of market-related challenges that persistently militate upon their performance. This study investigated the barriers to market orientation and how they influence the performance of South African universities of technology. A survey questionnaire was administered to a total of 507 academics who were conveniently recruited from six universities of technology. Data analysis was conducted using the aid of the Statistical Packages for Social Sciences (SPSS version 22.0) software. Statistical techniques employed in the study include exploratory factor analysis, Pearson correlation and regression analysis. Three barriers to market orientation; namely, internal environmental barriers, external environmental barriers and organisational environmental barriers were identified through exploratory factor analysis. Pearson correlation analysis showed negative correlations between the three barriers and university performance. Regression analysis revealed that external

environmental barriers and organisational environmental barriers negatively predicted university performance. Based on these results, conclusions were drawn, and recommendations were put forward.

Key Words: University performance, Market orientation, Environmental barriers, Organisational environmental barriers, University of technology.

JEL Classification: M31

1. INTRODUCTION AND BACKGROUND

After the emergence of democracy in 1994, the South African government implemented extensive changes to the higher education landscape (Akojee & McGrath, 2008). The prime intention was to ensure that higher education becomes all-embracing, such that even those individuals and groups that had been marginalised during the repressive apartheid era could have increased access to higher education (Price Waterhouse Coopers, 2014). Changes that were implemented in the higher education landscape include, the creation of a three-tier university system consisting of traditional universities, comprehensive and universities of technology, the creation of new regulatory bodies, the changing nature of student and staff distribution, the changing models of instructional delivery and intensified research emphases (Mafini, 2014). To date, South Africa boasts of a total of 26 universities, of which six are universities of technology. Universities of technology were created in 2004 and were vested with full authority to offer various higher education programs up to doctorate level (Du Pre, 2009). The formation of these universities of technology facilitated the urgent accommodation of the increasing number of people seeking higher education in South Africa.

Universities of technology continue to experience exponential growth in student numbers. As reported by Pouris (2012), student numbers at universities of technology had almost doubled over, 75% of all students were blacks, new funding and quality assurance systems had been put in place and universities of technology had become more receptive to the needs of the people of South Africa by 2011. A previous study (Badat, 2007) similarly reported that a majority of black prospective university students indicated that they preferred to attend universities of technology than the other forms of universities. These developments are symbolic of the increasing significance and influence of universities of technology in contemporary South Africa (Walwyn, 2008). Be that as it may, these institutions continue to face daunting performance-related

challenges in several areas. Examples include the shortage of skills, a shrinking job market that is failing to absorb graduates from universities of technology, and a perception problem in the sense that scores of stakeholders in both government and the private sector regard universities of technology as inferior (Cele & Lekhanya, 2014). In addition, intense competition between universities and jockeying for position are well acknowledged dynamics in South Africa's higher education (Mbali, 2006). These challenges present the need for universities of technology to examine their marketing approaches and harness all of their efforts in ensuring that they can compete and keep abreast with industry trends (Lategan, 2008).

Educational institutions have been compelled to embrace the marketing orientation idea by forces such as the need for expansion, diversification, increased competition and greater choice (Maringe, 2005). However, marketing in higher education only began to exert its explicit presence at the turn of the millennium, after protracted concealment under more traditional communications structures and functions (Maringe, 2004). This emergence brought with it an emphasis on various marketing orientation related offices focusing, amongst others, on public relations, external relations, international students, students' affairs, publicity and publications (Van Staden, 2010). With strong evidence of the benefits accruing to organisations that adopt a market orientation, it has become important for academics to understand and embrace the marketing concept (Menguc & Auh, 2006). Beliefs about market orientation have a major influence on how creative people become and how they will encourage others to express their support or commitment towards this practice (Zait, Nichifor & Timiras, 2012).

While the concept of market orientation has emerged from conventional marketing (Mercer, 1998), the concept has evolved over time, with the most enduring theme being the centrality and sovereignty of the customer in the decisions of educational institutions (Naude & Ivy, 1999). Kotler (2003) affirms that the key to achieving the organisational goals depends on determining the needs and wants of target markets and by delivering the desired customer satisfaction more effectively and efficiently than competitors deliver. Marketing orientation also assists institutions to be socially responsible, embracing the notion of conducting business with long term interests of the consumers in an unambiguous manner (Batty, 2000). Essentially, the societal concept appeals to higher education institutions to be ethical and to embrace a social responsibility consciousness that rejects the idea of driving products and services at any cost (Hemsley-Brown & Oplatka, 2006). Market orientation strategy thus relates to the

development of an institution's appropriate marketing mix (Mazzarol & Souter, 1999).

In congruence to the above holistic plea, the internal marketing concept has been developed largely within the context of marketing and more specifically service marketing where it has been acknowledged implicitly that an elevated level of customer satisfaction depends profoundly on personnel who interact with customers (Bateson, 1991). Within the internal market orientation paradigm, an organisation's marketing strategy is aimed, therefore, at creating enthusiasm, consistent behaviour and respect for the external marketing strategy (Flipo 1985:8). For higher education institutions, the link between external and internal marketing strategies is important as it operates within a service rather than a goods sector with educational institutions largely dependent on the quality and performance of staff for its services (Gronroos, 1990). This mode of marketing suggests that marketing tools and concepts can be employed internally with employees because satisfied employees usually lead to satisfied customers (Carr & Lopez, 2007). Hence, internal market orientation takes the marketing concept and applies it internally, that is, treating with equal importance the needs of internal and external markets (Bingley & Maillord-Salin, 2012).

Higher education and its institutions exist at the intersection of state, market and civil society, each with its specific, varied and different expectations and demands (Cohen, 2006). The idea that marketing is simply about selling is challenged by a number of ideas that relate strongly to educational management and includes the marketing triad model and recognition that marketing has goals other than recruiting students (Foskett, 2002). Marketing as selling is a basic survivalist notion and relatively unnecessary in an institution providing high standards of education and does not only have student recruitment as its only or even its major aim (Pretorius, 2010). Most of the efforts need to be directed to the quality of educational provision, relationship and responsiveness to stakeholders (Sarua, 2012). Instead, that marketing is concerned with meeting the organisational needs for survival and success, which in turn revolves around meeting the needs and wants of a broad society (Tomaskova & Kopkova, 2011). With a growing engagement with the world beyond the gates of universities, higher education institutions have to rise to the challenges of providing quality education and training in managing their external relations (Rivera-Camino & Ayala, 2010).

2. PROBLEM STATEMENT

The purpose of this study is to examine the barriers to marketing orientation in South African universities of technology and to determine how these barriers influence the performance of these institutions. Within the South African higher education sector, no visible marketing approaches seem to exist. Such apparent lack in market orientation may be due to the diversity in the vast higher sector with universities of technology limited in financial resources and generally inferior facilities compared to the prestigious traditional universities, which were better funded under the pre-democracy government dispensation (Ivy, 2001). Furthermore, South African higher education institutions seldom employ common market orientation activities to convey their image, and this tends to impact negatively on their performance (Van Staden, 2010). This apparent lack of inconsistency in image portrayal could account for some performance-related challenges that fairly new entrants to the higher education sector face (Garnett, 2005).). Still, in order to enable universities of technology to adapt to the changing education landscape and become more competitive, they need knowledge of their markets (Van Staden, 2010). Institutions that possess up-to-date knowledge of their strengths, weaknesses, opportunities and threats in their markets are better equipped to make sound decisions and develop more reflective strategies to ensure customer satisfaction (Carlos & Rodriques, 2012). Considering important changes taking place within the South African higher education sector, a strong willingness of universities of technology to adopt a marketing perspective should be encouraged (Akonkwa, 2013). Thus, an impetus exists for the employment of scientific methods in the elimination of any inconsistencies in the higher education industry.

With new types of higher education institutions such as universities of technology created in South Africa, prospective students are now faced with a broader selection of universities; all are competing with one another (Sarua, 2012). Universities of technology, being the group that faces the most grievous challenges, are left with the modest option to engender the marketing idea if they are to make a difference in the highly competitive higher education sector. For any marketing strategy to be implemented, it is important for all strategic constituencies to have a firm grasp of any constraining factors. Implementation of university marketing strategy is not immune to these factors. Given the rising importance of universities of technology to South Africa, and coupled with the need to improve their performance, it is important to cultivate a better

understanding of factors that inhibit the effective implementation of marketing strategies in higher education. Notably, there is a paucity of studies that have ventured to investigate that subject in the past, which creates a research gap that needs to be filled. The present study was intended to occupy such empirical openings.

3 RESEARCH METHODOLOGY

3.1 Research design

A quantitative design was adopted, based on its high degree of flexibility and its ability to facilitate the possible replication of the research procedure in the future, which increases both the validity as well as the reliability of the research results (Kumar, 2014). The survey design was then used in the collection of data since surveys are generally a very prized means for assessing opinions and trends within specific samples (Burns & Bush, 2010). The population was composed of all academics from the six universities of technology in South Africa.

3.2 Sample

The target population consisted of academics in the six universities of technology that gave their consent to participation in this study. The sample frame was drawn from a database of higher education institutions that is available on the South African Council of Higher Education website. This database provided links to each of the listed higher education institutions from which relevant information about possible respondents was obtained. In the selection of respondents, the non-probability convenience sampling technique. Selection of this procedure was dictated by the demanding work schedules of most academics, which inevitably made their availability and accessibility uncertain and challenging. Use of the convenience sampling technique had the advantage of making it easier to contact only those academics that were either accessible or available at the time of research. Initially, the sample size was pegged at 650 respondents, based on the historical sampling reference approach. In this regard, several previous studies that focused on market orientation research (Bakewell & Gibson-Sweet, 1998; Mazzarol, 1998; Ivy, 2001; Rindfleish, 2003) used sample sizes ranging between 700 and 900 respondents. However, after the distribution of the questionnaire, the final sample consisted of a total of 507 academics, giving an acceptable rate of nearly 78%. This response rate was acceptable because it is consistent with Fincham's (2008) recommendation that researchers should aim for response rates of at least 60% in most research surveys.

The majority of the respondents in the sample were males (n=289; 57%) with females (n=218; 43%) constituting the remainder of the sample. The majority of the respondents ages ranged between 30 to 39 years (n=172;34%), followed by the age group of between 40 and 49 years (n=160;32%), the age group between 50 to 59 years(n=81;16%), the age group < 30 (n=66;13%) and the age group of over 60 years(n=28;5%). Majority of the respondents further reported to be junior lecturers/lectures (n=246; 49%) who are in possession of a B Tech/Hons qualification (n=197; 39%) and have worked in HE (n=239; 47%) for between 3-6 years. These results are more or less representative of the study population.

3.3 Research instrument and data collection procedures

The survey instrument used in this study was subdivided into three sections. Section A elicited information on the demographic information of respondents. Section B consisted of questions eliciting respondents' perceptions regarding barriers to market orientation. These questions were adapted from a study conducted by Zebal (2003). Section C of the questionnaire elicited information on university performance using questions adapted from Ma and Todorovic (2011). Response options sections B and C were arranged in a Likert Scale structure in which 1 represented strongly disagree, and 5 represented strongly agree. Questionnaire items are listed in Appendix 1.

Questionnaires were transported via courier to a trained research assistant at each university of technology, who then assisted with their administration. A cover letter was attached to the questionnaire to highlight the purpose of the study as well as associated ethical issues. Ethical considerations, such as the respondents' right to anonymity, confidentiality, privacy and non-participation, informed consent and protection from discomfort, harm and victimisation, were followed during the administration of the questionnaire.

3.4 Statistical analysis

The Statistical Packages for the Social Sciences (SPSS version 24.0) were used as the principal data analysis tool. Descriptive statistics were utilised in the analysis of the demographic profile of respondents. Correlations between barriers to marketing orientation and university performance were assessed using Pearson's rho coefficient. Prediction and significance between dependant and independent constructs were assessed using multiple regression analysis.

4. RESEARCH RESULTS

The results section is divided into six sub-sections; namely, reliability and validity, correlation analysis, regression analysis, discussion, limitations and suggestions for further research, conclusions and managerial implications.

4.1 Reliability and validity

In the present study, reliability was measured using the Cronbach alpha coefficient. The reliabilities of the constructs used in this study, as shown in Table 3 ranged from 0.742 and 0.904. Since these values are well beyond the 0.7 minimum threshold recommended by Malhotra (2011), it can be stated that the measurement scales used in this study were internally consistent or reliable.

Measurement scales were tested for content, convergent, predictive validity. Content validity was assessed by ensuring that the pre-test was followed by the pilot testing of the survey instrument. The questionnaire was pilot tested with a convenient sample of 41 respondents who were selected from the population from which the sample was drawn. The pilot study facilitated further modification of the questionnaire to ensure that all questions were clear and accurately captured the required information. Convergent validity was established through the computation of Pearson's correlations. The negative correlations existing between the dependant and independent constructs (refer to Table 3) denote the existence of acceptable convergent validity between in the study. Predictive validity was determined through regression analysis. The results of the study show that all three independent constructs were statistically significant, which portrays the presence of satisfactory predictive validity in the study.

4.2 Exploratory factor analysis

The study aimed to establish the relationship between barriers to marketing orientation and the performance of universities of technology in South Africa. In order to determine the factor structure of the scales used in the study, the exploratory factor analysis procedure using Principal Components Analysis (CPA) was applied. In the procedure, three factors were extracted from the barriers to marketing orientation construct. These three factors were labelled as Factor 1 (internal environmental barriers), five on Factor 2 (external environment barriers) and the remaining four items on Factor 3 (organisational environmental barriers). The university performance construct was unidimensional.

4.3 Correlation analysis: barriers to market orientation and university performance

The linear association between the three barriers to market orientation (code named RBA 1, 2 & 3) and university performance (UP) was measured using the Pearson correlation coefficient. The results of the correlation analysis are reported in Table 3.

Table 3: Correlation Analysis, Reliability, Standard Deviation and Mean Scores: Barriers to Market Orientation and University Performance

CONSTRUCT	RBA1	RBA2	RBA3	UP	Cronbach Alpha	Std Deviation	Mean
RBA1	.000				.793	.950	3.431
RBA2	.707**	.000			.801	.827	3.414
RBA3	.560**	.571**	.000		.742	.834	3.507
UP	-.318**	-.371**	-.470**	.000	.904	.870	3.640

*Correlation is significant at the 0.05 level (two-tailed); **, correlation is significant at the 0.01 level (two-tailed)

As revealed in Table 3, significant positive inter-factor correlations ranging between $r=0.560$ and $r=0.707$ were observed between the barriers to market orientation. This denotes that an increase in one barrier leads to significant increases in the other barriers. There were significant negative correlations between all three barriers and university performance. This result signifies that university performance decreases as each barrier increases. In terms of barriers to market orientation factors, the mean scores obtained were 3.431, 3.414 and 3.507, respectively. This is an indication that respondents acknowledged the existence of these barriers within their institutions to be somewhat prevalent. These findings also imply that respondents perceive that these dimensions in respect of barriers to market orientation were present to some degree within the universities of technology. Overall, the relatively low standard deviations ($SD < 1$) for all the measured constructs is indicative of a relatively homogenous sample and the means for this data set. This provides a reliable indication of the responses and further indicates that the results of the study in this instance are trustworthy.

4.4 Regression analysis

Prediction between the barriers to market orientation and university performance was assessed using multiple regression analysis using the enter method. Barriers to market orientation were entered into the regression model as the independent

variables while university performance was entered as the dependant variable. The results are reported in Table 4.

Table 4: Regression Analysis: Market Orientation and University Performance

Independent variable: Barriers to Market Orientation	Dependent variable: University Performance				
	Beta	T	Sig	Collinearity Statistics	
				Tolerance	VIF
RBA1	0.009	0.154	0.878	0.564	2.156
RBA2	-0.165	-2.715	0.007	0.555	2.196
RBA3	-0.402	-7.828	0.000	0.625	1.600
R= 0.487 Adjusted R² = 0.232F=52.006					

The regression model (Table 4) reports that the three barriers to market orientation, (adjusted $R^2 = 0.232$) explained approximately 23% of the variance in university performance. This implies that the remaining 77% of the variance in university performance is explained by other factors that were disregarded in this study. Multi-collinearity statistics did not signal any serious threat, since Variance inflation factor (VIF) for the three barriers' subscales were satisfactory since they ranged between 1.600 and 2.156, which is less than the maximum threshold of 10. Tolerance values ranged between 0.555 and 0.625, which is beyond the recommended 0.5 minimum threshold.

An analysis of the regression analysis results shows that internal environmental barriers were statistically insignificant ($\beta = 0.009$; $t=0.154$; $p=0.878$). This result demonstrates that internal environmental barriers do not predict university performance. Also, external environmental barriers were statistically significant, albeit in the negative ($\beta = -0.165$; $t=-2.715$; $p=0.007$). This result demonstrates that the greater the external environmental barriers, the less the university performance. A negative and significant predictive relationship between organisational environmental barriers and university performance was also observed in the regression analysis ($\beta = -0.402$; $t=-7.828$; $p=0.000$). This suggests that the greater the extent of organisational environmental barriers, the lower the performance of a university, and vice versa.

6. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The study identified three specific barriers to market orientation; namely, internal environmental barriers, external environmental barriers and organisational environmental barriers. All three barriers have a negative linear relationship with university performance. However, only two barriers; that is, external environmental barriers and organisational environmental barriers negatively predicted university performance while internal environmental barriers did not predict university performance.

The results of this study provide profitable implications for both practitioners and academics. On the academic side, this study makes a significant advancement in the marketing theory by systematically examining the influence of barriers associated with market orientation on university performance. From a theory point of view, a contribution is made to the existing literature on the relationship of market orientation, barriers to market orientation and university performance, particularly in the context of developing universities of technology. The study also contributes to the identification of potential barriers to the implementation of the marketing concept in universities of technology, which gives insights into where the potential problem area lies in South African higher education institutions. Other higher education institutions could learn from this study and utilise the research to diagnose and initiate remedies to the constraints they face in their various operational domains. The study thus identified the conditions that foster or discourage market orientation and the contribution these factors have on university performance.

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