Antecedents of University Performance: Does Strategy Matter?

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Abstract

In a bid to contribute to the increasing body of extant interdisciplinary research within the antecedents of university performance and strategic management domains, this study investigates the role of generic strategies in the perceived performance of universities. Using a case study of eight Nigerian universities and survey responses from 380 academics and administrative staff from these universities, the study tested four succinct hypotheses using the covariance structural equation modeling (CB-SEM) technique. Findings revealed that while there was a limited link between differentiation strategy and performance, there was a substantially strong link between focus strategy and performance according to the findings. Similarly, findings revealed that respondents from public-private universities perceived their institutions as having the strongest generic strategy-performance connection, followed by respondents from the public sector. The cost leadership-performance path demonstrated no significant effect.

Keywords: strategy, business strategy, generic strategies, higher education

1. Introduction

Given the long-established notion in free market economic systems that generic strategy strategies drive corporate performance. Is it safe therefore, to assume in a similar fashion, that the sort of generic strategy used by a higher education institution has an impact on its performance? If this is the case, how does the nature of the institution (private or public) moderate or influence this effect? These two research questions highlight the study's two main aims, which are largely driven by the exponential growth in competition in the higher education market over the last decade (Leland and Moore, 2007; Leebron, 2014; King, 2015). When Porter (1980) established differentiation, cost leadership, and focus strategies, he created the notion of generic strategy. These are potentially effective strategies that businesses may employ to gain a strategic position in any given market that they can readily defend. The first of these strategies, while not dismissing the need of providing high-quality products and after-sales services to customers, concentrates on attaining low-cost manufacturing of goods and services in comparison to competitors. The second method, referred to as differentiation, requires implementing businesses to create a product or service whose distinctiveness is clearly recognized in the marketplace by both rivals and customers, and on which the implementing company may charge premium pricing. The third generic strategy includes implementing either a cost leadership or differentiation strategy while focusing on a very specific niche market (Porter, 1980). While Kaplan and Norton (1996) introduced the balanced score card as a multifaceted tool to help managers solve a wide range of strategic issues, it is best known for being used as a performance measurement tool in organizations, with the goal of enabling managers to effectively measure the performance or achievement of strategic goals from four perspectives: financial, customer, internal, and innovation and learning.

A growing trend in the adoption of broad market oriented strategies, particularly Porter's three generic strategies (differentiation, cost leadership, and focus) by both public and private higher educational institutions (Balzer, 2010; Mazzoral and Soutar, 1999; Mazzoral and Soutar, 2008; Lynch and Baines, 2004), has been documented by a substantial amount of qualitative and empirical research (Balzer, 2010; Mazzoral and Soutar, 1999; Mazzoral and Soutar, 2008; (Pithers and Soden, 2000; Abowitz, 2008; Brighouse and McPherson, 2015; Kim, 2009; Kukulska-Hulme, 2012; Chan, 2016; Hanover Research, 2014; Christensen and Eyring, 2011).

Despite these, there is virtually no actual study on how the adoption of each of the three general strategies affects the higher educational institution. In other words, no empirical research has been done on the general strategy-performance link. This may be related to Leebron's (2014) contention that both regulatory agencies and senior management of higher education institutions are slow to recognize the industry's increasingly competitive nature, and thus rely on superficial strategies and performance measurement outcomes that, while meeting their academic needs, may not accurately reflect their strategy and pedigree.

The current research is the initial first in a two-part research series aimed at filling this critical gap in the literature. The first part examines the impact of generic strategies used by

institutions on their performance as measured by the balanced score card instrument (BSCI), as well as how the type of institution (public, private, or both) moderates any observed relationship, as observed by academic and administrative staff from eight universities in the six geopolitical zones of the country. The second installment, which will be published in a future publication, will elaborate on the findings of this study by comparing the observed phenomena across three continents with significant volumes of higher educational traffic.

Given the lack of prior empirical research on the generic strategy performance (BSC) relationship, this study is a pioneer in this field, and its findings provide a foundation upon which future studies can build in terms of developing and expanding academic literature on this topic, resulting in a substantial and authoritative body of knowledge.

1.1 Research Questions

RQ1(i): How does the execution of each of the generic strategies affect higher education institutions' performance as evaluated by the balanced score card?

RQ1(ii): What moderating role does institution type play in the general strategy-performance relationship?

1.2 Study Hypotheses

H$_1$: The impact of generic strategy on the performance of higher education institutions is statistically significant and positive.

H1a: Differentiation strategy has a statistically significant and positive influence on all four performance parameters of higher education institutions.

H1b: Cost leadership strategy has a statistically significant and positive influence on all four performance characteristics of higher education institutions.

H1c: The impact of focus strategy on all four performance parameters of higher education institutions is statistically significant and favorable.

H$_2$: In higher educational institutions, institutional type considerably moderates the observed influence of each generic strategy on the four aspects of performance.

2. Research Methodology

This study used a quantitative research methodology in which two standardized instruments—the Generic Strategy Instrument (GSI) created by Dess and Davis (1984) and the Balanced Score Card Instrument (BSCI) modified from Venkatesh and Dutta—were used to evaluate the assumptions presented above (2007). The research participants were chosen at random using a stratified sampling approach in which each of the eight Nigerian institutions was treated as an independent stratum, with individuals drawn at random from each. A sample size of 384 was calculated using the Saunders, et al (2009) sample size estimation technique, out of a total population of 3800 academic and administrative personnel present in the eight universities under investigation at the time of data collection. However, 500 of the

combined questionnaires were issued cross-sectionally, and 380 usable surveys were returned, giving a response rate of 76%.

Given that universities do have and frequently publish long-term strategic plans, the choice of solely academic and administrative personnel as the group from which to collect data for this research may raise some eyebrows. However, renowned strategic management methodology experts have identified two major difficulties that obstruct the collecting of reliable strategy-related data from all sorts of businesses and organizations. Most theories that underpin strategic management literature, such as the resource-based perspective, agency theory, and generic strategy - performance postulations (as linked to business organizations), are afflicted by the problem of unobservables, according to Godfrey and Hill (1995). Researchers are limited in their ability to obtain sufficient and/or accurate data from members of an organization's board of directors or top executives because the element of surprise is often a key ingredient in strategies implemented by organizations, and to the extent that organizations are interested in protecting such information (present and past), researchers are limited in their ability to obtain sufficient and/or accurate data from members of an organization's board of directors or top executives.

Dorweiler and Yakhou (2005) further point out that it is commonly known that some institutions have two versions of strategic plans, one for public consumption and the other for internal use, complicating the process of gathering factual data based on publicly available strategic plans. Thus, this study focuses on gathering data from academic and administrative staff on the premise that in order for a university to implement any strategic plan and its underlying generic strategy, key aspects of the strategy must be communicated to top executives, who then pass it down through the functional level administrative hierarchy, with functional level positions such as deans and vice presidents seeing that key aspects of the strategy are communicated to functional level positions such as deans and vice presidents seeing that at the functional level positions such as deans and vice presidents seeing that To put it another way, while a few administrative staff members are not academics, the vast majority of administrative staff employees are either active academics or were active academics before becoming full-fledged administrative staff members. This research group is also most equipped to provide their opinions on each of the items in the GSI and BSCI instruments, from which we may determine the most prevalent generic strategy used at their place of employment.

2.1 Describing the Endogenous Constructs

The independent variable generic strategy is the first endogenous variable in this research. The single GSI instrument created by Dess and Davis was used to measure each of the three general strategies: differentiation, cost leadership, and focus strategies (1984). Participants were asked to assess their impressions of the 18 performance-indicating items on a scale of 1 to 5 (very important). Differentiation ($M = 3.12$), cost leadership ($M = 2.50$), and focus strategy ($M = 2.69$) were the most common replies. Internal consistency was assessed for all elements of the GSI instrument ($\alpha = .938$).

The performance of our second endogenous variable, as assessed by the balanced score card, comes next. The BSCI instrument was used to assess each of the four performance characteristics of the balanced score card for each university. Respondents were asked to assess their opinions of the 15, 30, 33, and 8 respective performance-indicating elements of the balanced score card from 1 (very low) to 7 (extremely high) to measure the financial, customer-related, internal processes, and learning and innovation performance aspects. Financial performance (M = 3.37), customer-related performance (M = 3.80), internal processes (M = 3.18), and learning and innovation (M = 3.24) were the most common replies. Similarly, the overall mean and internal consistency for all items of the BSCI instrument were approximated (M = 5.14; SD = 1.57; α =.977)

Finally, the ordinal moderator institution-type was examined by asking respondents to select one of three options: 1 (public institution), 2 (private institution), or 3 (non-profit organization) (public-private university). The BSCI instrument was used to assess each of the four performance characteristics of the balanced score card for each institution type. Respondents were asked to assess their opinions of the 15, 30, 33, and 8 respective performance-indicating elements of the balanced score card from 1 (very low) to 7 (extremely high) to measure the financial, customer-related, internal processes, and learning and innovation performance aspects. Financial performance (M = 3.85; M = 3.81; M = 4.71); customer related performance (M = 4.18; M = 4.10; M = 5.01); internal processes (M = 3.70; M = 3.66; M = 4.29) and learning and innovation (M = 3.80; M = 3.76; M = 4.38) were the mean responses for respondents in the public, private, and public-private institution types, respectively.

2.2 Describing the Exogenous Constructs

As a control variable, we included age in our research. It was calculated using a single uncategorized variable in which respondents were asked to state their age. As a result, a mean age score was calculated (M = 45; SD = 9.81).

3. Data Analysis and Findings

The direct influence of the independent and dependent endogenous factors was examined using structural Equation modeling, while the moderating endogenous variable was investigated using multi-group analysis in this study. The entire study was carried out with IBM's AMOS statistical program, version 22.

3.1 Examining the Measurement Model

We did a confirmatory factor analysis (CFA) in AMOS to explore both the psychometric and dimensional characteristics of each of the latent endogenous variables featured in this investigation, having adopted and altered all of the measures utilized in this work from existing literature. The CFA was conducted with all of the constructs (generic strategy indicated by the three types: differentiation, cost leadership, and focus strategies parceling each type's indicating items; and performance indicated by four dimensions parceling each dimension's indicating items) using the default Maximum Likelihood (ML) estimation method. According to Hair et al (2010) and Gaskin, the complete measurement model

exhibited good fit (Chi-square/df = 3.22, RMSEA =.041, CFI =.92, and SRMR =.034). (2016). Furthermore, all factor loadings were larger than.70, construct reliability (CR) values were greater than.70, and average variance estimates (AVEs) were all greater than.50, indicating that the constructs exhibited convergent validity (Hair et al, 2010; Gaskin, 2016; Fornell and Larcker, 1981).

3.2 Testing the Hypothesized Paths

We used version 22 of the AMOS software to conduct structural equation modeling to test the first hypothesis H1, after ensuring that the constructs were valid and reliable. Differentiation, cost leadership, and focus strategies were the independent variables, institution type was the moderating variable, and financial, customer-related, internal processes, and learning and innovation were the dummy variables. According to Hair et al (2010) and Gaskin, the fit indices for the structural model revealed an adequate fit (Chi-square/df = 3.20, RMSEA =.043, CFI =.97, and SRMR =.022). (2016). Table 1 shows that for endogenous variables, all of the direct effects of differentiation strategy on three of the performance dimensions were significant, positive but weak, while the effect of differentiation strategy on the fourth performance dimension, learning and innovation, was not significant. This lends some credence to hypothesis 1a (H1a). Second, the data reveal that the direct influence of cost leadership strategy on all four performance characteristics is not significant, indicating that hypothesis 1b is not supported (H1b). Nevertheless, the direct impact of focus strategy across all four performance characteristics was significant ($p<0.001$), positive, and substantial, indicating that hypothesis 1c is fully supported (H1c).

Table 1. Results of the direct effects

Direct Effects			
Hypothesized Paths Analyzed	β	S.E	P
Differentiation Strategy --> Financial Performance	.144	.045	.012
Differentiation Strategy --> Customer Related Performance	.139	.051	.015
Differentiation Strategy --> Internal Processes	.149	.046	.008
Differentiation Strategy --> Learning Innovation	.066	.049	.479
Cost Leadership Strategy --> Financial Performance	-.035	.068	.227
Cost Leadership Strategy --> Customer Related Performance	.006	.054	.891
Cost Leadership Strategy --> Internal Processes	-.065	.059	.638
Cost Leadership Strategy --> Learning Innovation	.072	.047	.262
Focus Strategy --> Financial Performance	.446	.056	***
Focus Strategy --> Customer Related Performance	.420	.042	***
Focus Strategy --> Internal Processes	.407	.040	***
Focus Strategy --> Learning Innovation	.438	.044	***

3.3 Examining the Moderating Influence of Type of Institution

Participants were asked to fill in a '1' if their place of work was a public university, a '2' if it was a private university, and a '3' if it was a public-private university, depending on the extent of government control. We also relied on the official Nigerian Ministry of Education categorization of each of the eight universities included in this analysis to account for common method bias. We compared the respondents' perceptions of the impact of each of the generic competitive strategies on four aspects of performance among all three institutional types by running a multi-group analysis in AMOS and looking at the chi-square value and its significance to see if there was a genuine difference in perception. Institutional type moderates the observed effect of generic strategy on performance, as indicated in table 2. Participants from public-private universities construed the strongest effects of each of the three generic strategies across all four performance dimensions for their institutions, accompanied by respondents from public universities, while respondents from private universities perceived the least effect of each of the three generic strategies across all four performance dimensions.

Table 2. Results of the multigroup analysis (moderating effect of type of institution)

Indirect Moderating Effects

			Public	Private	Public-private
Type of University					
Hypothesized Paths Analyzed	S.E	P	β	β	β
Differentiation Strategy --> Financial Performance	.044	.016	.140	.129	.152
Differentiation Strategy --> Customer Related Performance	.041	.019	.121	0.87	.151
Differentiation Strategy --> Internal Processes	.036	.012	.136	.109	.176
Differentiation Strategy --> Learning Innovation	.050	.483	.019	.016	.032
Cost Leadership Strategy --> Financial Performance	.066	.074	-.092	-.068	-.101
Cost Leadership Strategy --> Customer Related Performance	.062	.688	-.035	-.030	-.046
Cost Leadership Strategy --> Internal Processes	.048	.547	-.059	-.051	-.066
Cost Leadership Strategy --> Learning Innovation	.043	.559	.027	.022	.038
Focus Strategy --> Financial Performance	.059	***	.526	.466	.539
Focus Strategy --> Customer Related Performance	.055	***	.447	.405	.452
Focus Strategy --> Internal Processes	.060	***	.492	.410	.507
Focus Strategy --> Learning Innovation	.061	***	.485	.433	.490

Note. *** = p<0.001

We apply a chi-square test to see if the moderating effect seen above was significant or not after confirming that institution-type moderates the influence of each of the three generic

strategies on the four performance aspects of higher educational institutions. The chi-square test results in table 3 show that the observed moderating influence of institution type on the generic strategy-performance connection route is significant (p 0.001), indicating that hypothesis 2 is fully supported (H2).

Table 3. Testing the Significance of the Observed Moderation Effect

Model	DF	CMIN	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho-2
Structural weights	42	89.503	.000	.005	-.007	-.007

Source: Author generated

4. Discussion

The impact of three general strategies (differentiation, cost leadership, and focus strategies) on higher educational institution performance (financial, customer-related, internal processes, and learning and innovation) was studied in this study. We looked at this major approach in the context of Nigeria's higher education sector because of the country's reputation as a worldwide higher education destination. The results show that differentiation strategy has a substantial but little impact on financial, customer-related, and internal process performance. However, it had no effect on learning or performance based on innovation. Cost leadership strategy had no substantial impact on any of the four performance characteristics of higher education institutions, according to the findings. However, all four performance aspects of higher educational institutions were shown to be substantially, favorably, and powerfully influenced by focus strategy.

Furthermore, the study discovered that respondents' perceptions of the direct impacts of generic strategy on performance were either reinforced or decreased depending on the type of institution they came from. Respondents from public-private universities, in particular, had the greatest perceptions of the link between each generic strategy and each performance dimension, followed by those from public universities. The influence of each of the three general strategy on performance was rated the lowest by respondents from private colleges.

4.1 Theoretical Implications

This study adds to the general literature on strategy and performance in a variety of ways. First and foremost, we present a groundbreaking empirical study on the impact of market-oriented strategies in the form of generic strategies on multidimensional performance levels in the higher education business, given there is no previous research on this topic. Second, our findings that differentiation and focus strategies influenced multi-dimensional performance levels partially (for differentiation) and fully (for focus strategy) were similar to existing postulations and findings on generic strategy-performance relationships in businesses operating in the corporate world (firm level). Our conclusion that cost leadership strategy has no impact on performance in the higher education market, however, refutes previous

hypotheses and findings at the company level. However, the fact that focus strategy had the greatest impact on all four aspects of performance is more intriguing, as it raises fascinating concerns about why this could be the case in the higher education market.

Third, while finding that institution type moderated the observed relationship between generic strategy and performance is not surprising, our finding that respondents from public-private institutions had the strongest perception of generic strategy's influence on performance, followed by those from public universities and private universities, who had the lowest perception, is (Nellis 1999, 2000; Shleifer 1998; Shirley and Walsh 2000). In fact, Shleifer (1998) put it better when he said that because governments' primary goal is to achieve social goals, which are usually in the realm of improving social welfare, a good government would hardly need to own production facilities, factors of production, or producers to achieve this goal. Furthermore, it was implied that the private sector was better positioned to do so. However, we observe the opposite in the higher education business, which is not surprising given that the emphasis of our study was on the perceptions of academic and administrative personnel at the impacted institutions. This is because respondents from public-private and public universities may consider the four dimensional levels to be greater than those from private schools where such possibilities do not exist, maybe because of the substantial financing options available.

Fourth, the use of data from affected universities' academic and administrative staff rather than publicly available strategic plans is an additional contribution that follows Godfrey and Hill's (1995) recommendation that strategy researchers avoid the problem of "unobservables" in strategy research by using indirect methods to deduce strategy-related outcomes.

Finally, our research is a direct reaction to Venkatesh and Dutta's proposal for more investigation (2007). He recommended that future study should explore the strategy-performance linkage in the higher education business in his work where he designed and psychometrically evaluated a balanced score card instrument for the evaluation of performance in higher educational institutions

4.2 Implications for Practice

Our research has two important implications for practice. First, respondents believed that implementing a cost leadership strategy had no significant impact on all four dimensions of performance, whereas implementing a differentiation strategy had a weak but significant impact on three of the performance outcomes, while implementing a focus strategy had a strong and positive impact on all four performance dimensions. This suggests that in the higher education industry, while implementing a differentiation strategy has a weak but significant impact on three of the performance outcomes, implementing a focus strategy has a strong and positive impact on all four performance dimensions The pursuit of a focus strategy, which according to Porter (1980) means the pursuit of either a differentiation or cost leadership strategy that focuses on a narrow niche market, is the only generic strategy-type that is guaranteed to lead to a strong and significant increase in all four performance dimensions.

Second, the fact that respondents from public-private institutions rated generic strategy as having the greatest influence on performance, followed by public institutions, suggests that the robust opportunities made possible by the government's involvement in such institutions give them a perceived competitive advantage over private universities that do not have access to such funding.

5. Conclusion

The goal of this study was to be the first to look at the relationship between generic strategy and performance in higher education institutions in Nigeria. The replies of a stratified sample of academics and administrative personnel (n=380) randomly selected from the eight universities under investigation were evaluated using structural equation modeling technique. While there was a limited link between distinctiveness and performance, there was a substantial link between focus strategy and performance, according to the findings. The findings also revealed that respondents from public-private universities thought their institution had the strongest general strategy-performance connection, followed by the public sector. The cost leadership-performance relationship had no effect.

5.1 Study Limitations and Recommendations for Future Research

This study, like every other research, has inherent limitations. The fact that this study relies solely on the perceptions of academic and administrative staff and may or may not accurately reflect the true nature of the generic strategy applied at a particular institution, as well as its performance, is one of the limitations that should be considered when interpreting findings from this study. Second, while the findings of this study provide pioneer and generalization insights into strategy-performance linkage in the higher education industry, it is critical that the economic, geographic, and socio-cultural context of Nigeria—the context in which this study was conducted—be taken into account when interpreting the study's findings.

The groundbreaking nature of this research calls for confirmation through replication, thus our first recommendation for future research is that this study be duplicated in both the same and far-flung geographic locations. Second, researchers should expand on the findings of this study by conducting comparative empirical analysis across geographic regions to discover if the results are consistent or differ across borders. Third, while this study focused on the moderating effect of institutional type on the observed strategy-performance linkage, it is possible that other variables such as employee experience and employee diversity could significantly moderate the primary path under study, which would necessitate further research.

References

Abowitz, K. (2008). On the public and civic purposes of education. *Educational Theory, 58*(3), 357-376.

Balzer, W. (2010). *Lean higher education: Increasing the value and performance of university processes*. CRC Press, Taylor and Francis Group.

Brighouse, H., & McPherson, M. (Eds.). (2015). *The aims of higher education: Problems of morality and justice.* University of Chicago Press.

Christensen, C., & Eyring, H. (2011). *The innovative university: Changing the DNA of higher education from the inside out.* John Wiley and Sons.

Dess, G. G., & Davis, P. S. (1984). Porter's (1980) generic strategies as determinants of strategic group membership and organisational performance. *Academy of Management Journal, 27*(3), 467-88.

Dorweiler, V. P., & Yakhou, M. (2005). Scorecard for academic administration performance on the campus. *Managerial Auditing Journal, 20*(2), 138-44.

Hanover Research. (2014). *Trends in higher education marketing, recruitment and technology.* Washington D.C.: Hanover Research.

Kaplan, R. S., & Norton, D. P. (1996). *The Balanced Scorecard.* Boston: Harvard Business School Press.

Kim, T. (2009). *Strategic overview: Managing sustainable ICT in further and higher education.* Retrieved from https://www.aoc.co.uk/sites/default/files/Strategic_Overview_Managing_ICT_in_Further_and_Higher_Education.pdf

King, A. M. (2010). *A strategic assessment of the higher education industry: Applying the Porter's five forces for industry analysis.* Retrieved from https://www.researchgate.net/publication/254351314_A_Strategic_Assessment_of_The_Higher_Education_Industry_Applying_the_Porter's_Five_Forces_for_Industry_Analysis.

Kukulska-Hulme, A. (2012). How should the higher education workforce adapt to advancements in technology for teaching and learning? *The Internet and Higher Education, 15*(4), 247-254.

Leebron, D. W. (2014). A look at the competitiveness of higher education. Retrieved from http://thehill.com/blogs/pundits-blog/209980-a-look-at-the-competitiveness-of-higher-education

Leland, D., & Moore, J. (2007). Strategic: focusing, securing competitive advantage. Retrieved from http://www.aascu.org/uploadedFiles/AASCU/Content/Root/MediaAndPublications/PublicPurp oseMagazines/Issue/sep-oct07strategic.pdf

Lynch, R., & Baines, P. (2004). Strategy development in UK higher education: Towards resource-based competitive advantages. *Journal of Higher Education Policy and Management, 26*(2), 171-187.

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