African Journal of Business Management Vol. 5(33), pp. 12890-12897, 21 December, 2011
Available online at http://www.academicjournals.org/AJBM
DOI: 10.5897/AJBM11.2397
ISSN 1993-8233 ©2011 Academic Journals

Full Length Research Paper

Deliberate strategy and the tangible link to performance: Lessons from South African higher education

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Accepted 25 October, 2011

The notion of deliberate versus emergent strategy has long been debated. However, researchers have failed to show which method will bring about an increase in organisational performance, which is the bottom line for business organizations. The study proposes that higher education institutions (HEIs) can be regarded as businesses, and thus, also have to be concerned about their performance within competitive environments. Using a quantitative methodology, we set out to explore the environments in four public HEIs in South Africa and sought information on their use of deliberate strategy. The study then compared their use of strategy with their performance (determined by their research outputs – an inarguable measure of performance in the current South African higher education landscape). The paper further compared two types of HEIs in South Africa, namely traditional universities and universities of technology. Statistical significance testing was done to determine mean differences between the various groups. The paper found that with regard to deliberate strategic management processes deployed, there were no significant differences between the types of institution. However, a significant finding was that more deliberate use of strategic management was likely to result in higher research outputs in HEIs. The article concludes with recommendations to policy makers regarding their strategic management directives.

Key words: Deliberate, emergent strategy, performance, higher education institutions.

INTRODUCTION

Many scholars (Drucker, 1946; Chandler, 1962; Porter, 1980; Hamel, 1996; Robert, 2000; Pearce and Robinson, 2003) have devoted much of their research to strategic management in organisations, the apparent success of implementing strategic approaches in relation to a firm's performance and questions raised around which strategic approach is most suitable for achieving optimal performance in a firm.

In essence, strategic management was intended for use as a mechanism to achieve competitive advantages. Various authors (Ehlers and Lazenby, 2010; Louw and Venter, 2006) allude to the premise that the use of sound strategic management is likely to yield better performance or competitive advantage. Mansfield and Fourie (2004) denote that strategy is in fact, the management behaviour concerned with the organisation's creation of sustainable competitive advantage. Notably, this is an important task at any time. The question arises as to whether strategic management is sufficient to achieve these outcomes; in particular, the issue of "competing successfully". In today's turbulent environments, the competition amongst organisations has gone beyond the superficial level; that is, traditional competition at the

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level of ultimate products. It has become increasingly obvious that competition is multi-layered, which implies a hierarchy of competition (Yonggui and Lo, 2002). Almost all, scholars agree that the utilisation of strategic management in an organisation is necessary and useful, and is inarguably linked to performance. However, very little research has indicated concretely whether the use of such approaches has had an impact on the performance of an organisation.

In this vein, research has failed to adequately show whether utilising strategic management does ultimately result in improved performance or competitive advantage. In addition, the study of performance and competitiveness is mostly focused on corporate business environments and their endeavours to sustain it (Drucker, 1946; Chandler, 1962; Porter, 1980; Hamel, 1996), but very little focus has been placed on other types of organisations, such as higher education institutions (HEIs) that have to in many instances also rethink the way they operate in order to survive in the competitive market. In effect, HEIs are organisations that experience the dynamics of competition.

Coulter (2002) contends that there is a cultural paradigm concerning the traditional administrative function in universities: “we are not a business so why should we be worried about running our organisation like a business?” However, Katz (1999) and Bok (2003) denote that HEIs are, in fact, businesses in the ordinary sense that are required to “perform”.

This sentiment is reiterated by Kotler and Fox (1995), who claim that HEIs have learned a great deal about operating in a businesslike manner. This need to operate as a business has had an underlying impact on the survival of public HEIs. These institutions not only need to keep abreast of changes in their environments, but also need to find an appropriate position to thrive in these environments (SAUVCA, 2002). Especially in recent years, South African public HEIs - those created and funded by the state (Metz, 2011) - have been finding it difficult to sustain advantages in certain performance areas, such as maintaining the quantity of research outputs produced by academic staff members. Higher education is still publicly subsidised (Breier, 2001) in South Africa and conventional government-funded research remains a significant, and for many institutions, a dominant proportion of income (Price et al., 2003).

In this article, we shed some light on this premise, by exploring the HEI environment in South Africa and comparing their use of strategic management approaches in relation to their performance (via their research outputs). Two types of public HEIs were employed in the study: traditional universities and universities of technology, the latter which are considered to be more application-based universities, as opposed to their former more traditional counterparts. As the performance in terms of research outputs differs quite significantly in traditional universities as opposed to universities of technology, a comparison will also be drawn between the two types of institutions.

Deliberate versus emergent strategic management

Many contradictory arguments exist over what corporate strategy consists of, mainly due to the complexity of the subject matter. Mintzberg and Waters (1985) were the first to coin the terminology of “deliberate” and “emergent” strategies. A deliberate strategy is one whose objective has been developed before the strategy commences whilst emergent strategy allows objectives to be developed as the process unfolds (Lynch, 1997).

Mintzberg et al. (1998) suggested that deliberate strategy is associated with managerial control and is aimed at making sure that *managerial intentions* are realised in the form of tacit outcomes, while emergent strategy places more emphasis on understanding what those intentions should be. Mintzberg further argued, reiterated by Broadhurst et al. (2001), that much of the conventional strategy literature is firmly focused on the realisation of explicit intentions and therefore on implementation, largely to the exclusion of the emergent.

Processes cannot generally be fully controlled or planned (Beeson and Davis, 2000) and in such cases an emergent approach is often required. Lowe and Jones (2004) advocated that the outcomes of an emergent process are a combination of both reflective, conscious and of unreflexive, unconscious elements. This approach emphasizes the view that corporate strategy emerges, adapting to human needs and continuing to develop over time. It is embryonic, incremental and unremitting, and therefore cannot merely be summarized in a plan that is then supposed to be implemented. Emergent corporate strategy is a strategy whose final objective is unclear and whose elements are developed during the course of its life, as the strategy proceeds. The theorists of this approach often argue that long-term deliberate strategies are of limited value. Lynch (1997) and West (2008) concur with this view by pointing out that human beings are key players in the strategic process and it is not, as a result, easily susceptible to mechanistic and predictive planning techniques or a crude top-down directive approach.

The more intuitive, emergent approach centres on developing a strategy that interacts with the external environment and the internal competence of an organisation (Marlow, 2000). Emergent organisational systems are different from planning and control systems. They rely on different world views, apply different theories of organisational change, suggest different means of organising, require different tasks of management and emphasise different dimensions of strategy (Hench, 1999).

Both schools of thought require a process; emergent strategy merely involves changing an organisational philosophy from attempting to adapt to a predictable future, to flexible and speedy responses to a changing present (Smit, 1999). The move in literature is towards advocating emergent strategic management processes, but there is a very tenuous relationship with organisational performance at the emergent strategy level. We

propose that although not the most popular approach according to current business literature trends, deliberate strategic management processes still supposes a tangible link to performance, which is ultimately what organisations are concretely measured on.

The issue we wish to expound on during the course of this article pertains to whether executives and strategy makers in organisations (especially HEIs) make use of a formal process when developing strategy and alternatives. Although, deliberate strategic management might be criticised for not being sufficiently flexible, it merits noting that the concept of having an intentional process, however, static, has numerous benefits for an organisation. Marlow (2000) gives credence to this notion by postulating that organisations that do make use of a strategic approach, however informal, are more likely to survive. Therefore, it is imperative for executives in an organisation to examine the manner in which strategy is formulated within its organisational climate in order to determine which strategic approach will be most appropriate to achieve sustainable competitive advantages.

This article aims to determine whether strategic approaches are constructively employed within those higher education institutions selected for the study and what the impact is on the performance of those HEIs. Owing to the large and often highly bureaucratic nature which characterises higher education in general, we put forward that deliberate strategic management may be more suited to this environment. This approach was used then as the basis for the strategic management scale used in the study.

Performance in South African public HEIS

Research outputs are a substantial measure of performance in South African public higher education, are subsidised by government, and were used as the performance measure for the purpose of the study. Jinabhai (2003) and Waghid (2009) affirmed that research forms a fundamental component of the higher education system, as a significant performance indicator and has become firmly integrated into the university milieu. Metz (2011) goes on to say that governments in English-speaking countries tend to audit the performance of universities via a quantitative appraisal of their outputs, namely publication rates. The funding for this category is of principal concern to the higher education sector, especially since the subsidies allocated in earlier years, which were based on “blind research funding”, have fallen away and have become output-driven.

If HEIs are dependent on these performance outputs for survival, it can be concluded that research output rates are a reasonable measure of competitive advantage for the abovementioned HEIs. We hypothesize that the use of a deliberate strategic management approach within HEIs will have a positive relationship with their performance (research outputs) and thus also on their potential competitive advantage.

METHODS

Instrument for data collection

The measuring instrument was developed mainly from a combination of research instruments, measuring deliberate strategy formulation and implementation (GPRA, 2001; LMG, 2003; TBC, 2004). The measuring instruments could not be used as they were for the research that needed to be conducted in the higher education system in South Africa; therefore, the items from previous research were merely used as a framework, and new or adapted items were generated and tested to be used in the final research design. Certain variables were then selected or altered to form part of the initial design of the research instrument. These variables were also tested in a pilot study and further refined or deleted for use in the final research instrument. When selecting the variables for the strategic planning portion of the survey, it was important to consider only assessing those areas that the individual respondents would have knowledge of, or would be able to answer. This was to determine how knowledgeable the respondents were regarding the deliberate strategic management processes employed by the institution/s, which would give an indication of how thoroughly deliberate strategic planning is utilised throughout the institution.

The study made use of a six-point Likert scale ranging from “strongly agree” to “strongly disagree”. It was considered more beneficial to use an even rating scale than an odd one, so that respondents were prevented from merely choosing the “middle-of-the-road” response. Data was sought from respondents on how deliberate strategy was utilised in the institution. Some of the items, for example, included statements like “I am involved in the strategic planning process in this organisation” or “This organisation does better than its competitors as a direct result of its strategic management”.

The questionnaire was piloted on a sample group of 30 academic staff members, randomly chosen from one HEI, which would be similar to the sample used in the main study. From this pilot test, it was ascertained which questions might be ambiguous. Testing for reliability and validity analysis was also done at this stage, as well as inter-item correlation analysis to determine which items might become problematic.

Sampling procedure and questionnaire administration

As it was practically and geographically not possible to survey the whole target population (Saunders et al., 2003), a sample frame was demarcated by a certain geographical region, namely the Gauteng province in South Africa. The study was demarcated on the basis of geographical boundaries and institutional characteristics, as follows: the sample frame used in the study were all the public higher education institutions in South Africa, limited to only those institutions in the Gauteng province and institutions which had not merged. The Gauteng province was selected due to its geographic location, as well as the fact that the majority of students enrolled in public higher education are enrolled in this province (DOE, 2009).

A three-year average of performance data (research output rates) from the selected institutions of higher education was utilised for the study. Two universities and two universities of technology in the Gauteng province remained unaffected by mergers at the time of the study, and these were therefore, selected to be utilised in the research in order to draw comparisons between the two types of institutions. The questionnaire was administered to full-time academic employees (at varying levels and in different departments),

Table 1. Research outputs: all four institutions.

Institution	Year			Total (%)
	2000*	2001*	2002*	3-year average
A				
Unit outputs	666.19	709.52	632.89	57.73
Number of relevant staff members	1120	1162	1197	
Total % outputs	59.48	61.06	52.87	
B				
Unit outputs	832.75	882.21	954.18	49.99
Number of relevant staff members	1800	1844	1695	
Total % outputs	46.26	47.84	56.29	
C				
Unit outputs	10.78	8.94	16.22	2.99
Number of relevant staff members	384	409	406	
Total % outputs	2.81	2.19	3.99	
D				
Unit outputs	9.14	7.4	12.58	2.07
Number of relevant staff members	476	469	463	
Total % outputs	1.92	1.58	2.72	

* Statistics only available at the time of the study until 2002**.** Source: DOE (2004).

as they were ultimately responsible for the performance output measures being used in the study. Judgement sampling was used for the respondents who answered the questionnaire. Owing to the fact that the questionnaires were personally administered, the respondents had a non-probability chance of being selected to participate, based on their availability at a given time. For statistical significance, it was decided to pursue a quota sample of 50 respondents per institutions to allow sufficient room for error or non-completion of certain items. A total of 179 questionnaires were completed, distributed over four HEIs. Every attempt was made to secure a sufficient sample from each institution. However, although, numerous follow-up attempts, and telephonic reminders were sent, a response of only 19 questionnaires was obtained from Institution D. As responses to those questionnaires showed normal data distribution, they could be generalised for the sample and were utilized accordingly.

Analysis of the strategic approach dimensions included descriptive statistics, multiple analyses of variance and, statistical and practical significance testing. The data surrounding these dimensions were then compared to organisational performance (using the research output rates) to determine whether there were any significant relationships between the variables and to determine whether there is any evidence that the use of deliberate strategic planning results in higher performance and thus, a competitive advantage for HEIs.

FINDINGS AND DISCUSSION

Research output rates

Statistics were obtained from the then South African Department of Education (DoE) to determine research output at the time the study was conducted. Research outputs for HEIs as advocated by the DoE are listed as a unit amount. Outputs made by the institution may take the form of publications in journals, conference proceedings or any other accredited literature, written by academic staff members. Each publication receives a unit output on a weighted scale. The formula for the total percentage of research outputs per institution was used as follows:

$$\frac{\text{Research outputs per institution}}{\text{Academic/research staff member per institution}}$$

The percentage of research outputs per staff member was calculated for each of the selected institutions, also over a three-year average period as depicted in Table 1.

Description of the sample

Of the total sample (n = 179), the majority of the respondents were lecturers or senior lecturers (61.45%), whilst the rest were made up of deans, academic heads or junior lecturers. The respondents were spread fairly equally over the different faculties or subject fields within the university, with the preponderance of the respondents being linked to an economic sciences or commerce faculty. 60% of the respondents had been with their current institution for more than six years, and 39% between 0 to 5 years, with 1% missing data of respondents who did not answer the question. 74% were in

Table 2. Reliability analysis.

Valid n	Sample	Cronbach alpha	Standardised alpha	Inter-item correlation
158	Whole sample	0.8619	0.8622	0.3264
46	Institution A	0.8923	0.8916	0.3382
44	Institution B	0.8630	0.8634	0.3381
49	Institution C	0.7935	0.7928	0.2392
19	Institution D	0.4503	0.4372	0.7010

Table 3. Statistical and practical significance: Institutions A and B.

Variable	Mean		t-value	p	N		Cohen's d
	A	B			A	B	
Deliberate strategy	3.340	2.738	3.425	0.000*	57	48	0.617 **

* Statistically significant at p<0.05. ** medium effect, pointing towards practical significance.

in possession of at least a Master's or Doctoral qualification.

Reliability of the scale

The Cronbach alpha (refer to Table 2) computed for the entire sample was 0.8619 for the strategic management scale, which is satisfactory according to the 0.7 standard set by Nunnally, (1978) and later by Litwin (2005).

The Cronbach alpha for the strategic planning dimension ranged from 0.4372 to 0.8923. The lowest reliability score was obtained for Institution D and can be attributed to the low number of responses from that institution. However, the Cronbach alpha for the entire strategic management scale was 0.8619, which is in the acceptable range. It can also be noted that the Cronbach alpha values for each institution are somewhat consistent, except for Institution D. The reliability between the four institutions can therefore be considered to be fairly analogous.

T-tests

The student's T-test was used to assess whether there were any significant differences in the factor means between the four sample groups tested in the survey, statistically and practically. The institutions were compared as follows: The two traditional universities were compared with one another; the two universities of technology were compared with one another; and the two universities of technology were compared with the two traditional universities. As well as using the t-value to determine statistical significance, we used Cohen's d-statistic to determine whether there was any practical significance between means. The significance levels are represented as follows:

a) $d < 0.20$ – small effect, practically non-significant;
b) $d < 0.50$ – medium effect, points towards being practically significant; and
c) $d < 0.70$ – large effect and the results are practically significant.

Comparison between the traditional universities – Institutions A and B

Table 3 gives an indication of the statistical and practical significance of the two institutions in terms of the strategic planning scale tested in the survey. Institutions A and B showed statistically significant differences at $p < 0.05$ in their levels of strategic planning. The Cohen's d-statistic for the scale reflected a medium effect and points toward practical significance at $d = 0.617$. This indicates that there are statistical ($p = 0.000$) and practical significant differences between the two institutions, which culminates in a medium effect.

Comparison between the universities of technology – Institutions C and D

Table 4 reports on the practical differences that can be observed between Institutions C and D, which are universities of technology. The strategic planning factor showed large practical significant differences between the two institutions.

Comparison between institutions A, B, C and D

The next set of mean differences that is examined is outlined in Table 5, which represents a comparison

Table 4. Statistical and practical significance: Institutions C and D.

Variable	Mean		t-value	p	N		Cohen's d
	C	D			C	D	
Deliberate strategy	3.418	2.763	-3.846	0.000*	52	19	0.942 #

* Statistically significant at $p < 0.05$; ** medium effect, pointing towards practical significance; *** no Cohen's d-statistic calculated – variable not statistically significant; # large effect, practically significant.

Table 5. Institutions A and B compared to C and D.

Variable	Mean		t-value	p	N		Cohen's d
	A and B	C and D			A and B	C and D	
Deliberate strategy	3.065	3.243	1.357	0.177	105	71	***

* Statistically significant at $p < 0.05$; ** medium effect, pointing towards practical significance; *** no Cohen's d-statistic calculated – variable not statistically significant; [a] small effect, practically non-significant.

Table 6. Performance output rates.

Institution	Research output rates (%)	Mean deliberate strategy
A	57.73	3.340470
B	49.99	2.737614*
C	3.00	3.417776
D	2.07	2.763158

* Represents the lowest mean in the sample group.

between traditional universities and universities of technology. This was done in order to determine whether there were any mean differences between the two types of institutions and whether or not the differences in the factors would be statistically and/or practically significant. It can be inferred from Table 5 that there are no large practical significant differences between the two types of institutions on the strategic planning factor. So whether the institution is a traditional university or a university of technology does not seem to have any bearing on whether they make use of deliberate strategic management.

One of the objectives of the study was directed towards drawing a comparison between the extent to which strategic management was instituted and the level of performance output achieved by an institution. These outputs have been tabulated as the research output rates of an institution. The calculations for the three-year average of research output rates for the four institutions are presented in Table 6 (performance output rates as opposed to the means of each factor). As can be seen from Table 6, the lowest mean scores were obtained for Institution B on the strategic planning factor. Institution B is a traditional university. This indicates that Institution B experiences a lack of strategic planning. The second lowest mean scores overall were obtained by Institution D, which is a university of technology.

This accepts the initial tenant of the article, which inferred that those institutions that utilised more formal strategic approaches were more likely to experiencing higher performance in terms of research output. These results indicate that those institutions that have somewhat higher research outputs are using strategic planning effectively We may deduce from this that the structure that transpires as a result of implementing formal strategic planning practices, may also lend itself to giving form and structure to research endeavours and efforts, which are likely to require a rigorous and structured approach.

CONCLUSIONS AND RECOMMENDATIONS

The study concerned itself with an examination into the current situation of four selected public higher education institutions with regards to their implementation of deliberate strategic management approaches. The results of this research were then correlated against a selected performance output measure to determine whether there were any significant relationships between the variables. This was intended to show that the use of certain strategic management mechanisms could have a

significant impact on the performance of an institution, which could result in sustainable competitive advantages.

The main conclusions that could be drawn from the study indicate to what degree these institutions make use of deliberate strategic planning methodologies in their operations. The study has indicated that there is a positive relationship between utilising deliberate strategic planning and the research output performance measures of the institutions. In other words, those institutions making use of deliberate strategic approaches perform better on the research front than those who do not make proper use of them. The empirical results show that those institutions making use of deliberate strategic methods are more likely to outperform their competitors on research outputs and so, are more likely to obtain competitive advantages. The possibility arises that HEIs are not embroiled in the midst of such highly turbulent environments as was originally postulated and may not need to make use of emergent strategic methods. Emergent strategy may work in a network organisation, but in bureaucratic systems that typify South African HEIs, a formalised deliberate approach may be far more useful. Interestingly, there seems to be no relationship between the type of institution (traditional university or university of technology) and whether or not they make use of a deliberate strategic approach.

In any respect, the policy makers in both types of institutions should make more of an effort to utilise deliberate strategic approaches, as the study has shown that they are effective in raising performance. This can be done for the institution as a whole, as well as for the individual departments. Institutions that make an effort to adopt deliberate strategic approaches should ultimately see an overall increase in their competitive advantage. In other words, their research output rates should improve, and arguably many other performance measures within the institution. Employees that are more engaged in the strategic functioning of an organisation within their working environments will be more reactive to changing circumstances and better equipped to make a contribution to improving the performance measures of the institution.

The study was limited to only four HEIs in South Africa, and only one key performance measure was used. The future research possibilities that could be conducted as an extension of this study thus include an investigation into other higher education institutions, in areas other than the Gauteng province and beyond South African borders, to further assert the relationship between strategic planning and performance. This may involve using additional, confirmatory performance measures to support the findings of this study.

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