

# **STRATEGIC MANAGEMENT AND THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES BY SELECTED SOUTH AFRICAN AND AMERICAN STUDENTS**

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## **Abstract**

This research focuses on the value of Strategy Teaching and the impact of current information, communication, technologies (ICT) on the business life of students in South Africa and the USA. The first objective of this research is to assess perceptions of the value of Strategic Management on their business life and what online practices they currently employ. The second objective is to identify the modes of ICT access, awareness about possible ICT, influence of sharing, submitting, amending and using information, taking time away from studies, etc. The third objective is to establish some differences between the two research populations in South Africa and the USA. The majority of students indicated that they experience significant value in their study of Strategy and also significant differences between the two populations about the perceived value of the ICT activities they perform.

## **Introduction**

The impact of rapid change in business strategy arose from the rapid emergence of new technologies and resulting new industries; globalization; emergence of new pluralism of institutions that make obsolete traditional theories of government and society; and the emergence of knowledge capital as the central resource in a modern economy. Given the continuous evolution and increasing importance of Strategic Management as a capstone course at Business/Management Schools in an ever-changing and dynamic business environment, it has recently come under scrutiny in terms of both its relevance and modes of delivery in view of the unprecedented, on-going advances in information and communications technology in general, and in higher education in particular. This paper accordingly highlights important concerns regarding Strategic Management as an important component of Business Management curricula in general, noting the most recent developments in business and management education, and exploring the experiences of business students in their study of Strategic Management and the role of ICT at a selected Business Department (School) in South Africa and Business School in America in their quest of preparing for business life.

This paper addresses the following topics:

- Short discussion on the importance of Strategic Management
- The use of ICT in Higher Education
- Research methodology, scope and limitations of the research
- Discussion of findings, summary and conclusions

### **Strategic Management**

Strategic management is an on-going process of formulating strategies for the organization that bring profit to the organization and create harmony between the organization and its environment (Bower, 2008). It lists the strengths that the organization already possesses for the achievement of its objectives; weaknesses that hinder in goal accomplishment; opportunities and markets that can be exploited; and threats that are present in external and internal environment. This is, in short, called a SWOT analysis. While making decisions about the strategy, the organization analyzes the distinctive competencies the company already possesses. Distinctive competency can be a valuable asset for the company. Distinctive competencies make the process of strategy formulation significantly more directional and successful (Kachra & Schnietz, 2007; Ning, 2012).

### **The Importance of Strategic Management in Organizations**

A well-formulated strategy can bring the following benefits to the organization in the present as well as in the future:

1. Strategic management takes into account the future and anticipates it.
2. A strategy is made in rational and logical manner, thus its efficiency and its success are ensured.
3. Strategic management reduces frustration because it has been planned in such a way that it follows a procedure.
4. It brings growth in the organization because it seeks opportunities.
5. With strategic management organizations can avoid helter and skelter and can work directionally.
6. Strategic management also adds to the reputation of the organization because of consistency that results from organizations success.
7. Often companies draw to a close because of lack of proper strategy. With strategic management companies can foresee future events and therefore remain stable in the market.
8. Strategic management looks at the threats present in the external environment, and thus companies can either work to get rid of them or else neutralize the threats.

### **The Use of ICT in Higher Education**

ICT has become a widely-used term to describe the perceived *second wave of the Internet*, focusing on new collaboration technologies, which can be classified into five areas namely, (a) information sharing sites (Powerpoints, slides, articles, wikipedia, blogger, WebCT, Blackboard), (b) communication sites and technology (e.g., gmail, webmail), (c) applications (e.g., Thinkfree, googledocs),

(d) sharing photos, movies, clips, (e.g., Flickr, MySpace), and (e) social networking (e.g., LinkedIn, Facebook).

The use of information technology is fast becoming an integrated and normalized part of Higher Education (Sloman, 2001; Jaffer, Ng'ambi, & Czerniewicz, 2007; Guri-Rosenblit, 2009). From the 1970s up to the first decade of the 21<sup>st</sup> century, conditions in teaching and learning have changed dramatically in a global context, with a struggle to adapt to the demands of both students and institutions of higher learning for greater flexibility (Lockwood & Gooley, 2001). This confirms that teaching in Higher Education is in a constant state of flux, a transformation process where online education is becoming more prevalent for an increasing number of academic disciplines (see Anderson, 2007; Oncu & Cakir, 2011; Waycott, & Sheard, 2011).

Many university courses are theory driven and assume that students have knowledge or real world experience and can therefore readily make the links between theory and practice. However, students often have limited experience or practical knowledge and therefore have difficulty in understanding theory. Deacon, Morrison, and Stadler (2005) report on the use of educational technology to simulate film editing. The *Director's Cut* was produced and used in a Film and Media course at UCT to provide students with insights into the practical processes involved in filmmaking without engaging in the actual process of editing. Exposing students to actual editing is expensive and impractical in a large course. The intervention provided individual students with an authentic learning environment through a simulation.

Similarly, Carr, Cox, Eden, and Hanslo (2004) report on an International Trade bargaining simulation developed for an economics course where students assumed the role of national trade negotiators representing specific countries. Lecturers and tutors assumed the role of World Trade Organisation (WTO) officials in a semi-authentic process designed to teach students negotiation and bargaining skills similar to those required by professional trade negotiators. Since the Higher Education sector in South Africa has kept up with the above and other global technological developments (Czerniewicz, Ravjee, & Mlitwa, 2005) largely as a result of the impact of advances in and accessibility of information and communications technology globally, the necessary architectures and infrastructures are available at the two institutions included in this study.

## **Research Methodology**

### **Questionnaire Design and Administration**

A literature review was undertaken to identify existing research on the value of Strategic Management and users' behaviour with regard to ICT in Higher Education. In addition, two surveys were conducted among Strategic Management students in the Faculty of Economic and Management Sciences at the University of Stellenbosch (RSA) and first year graduate Strategic Management students at the Graduate School of Business at the University of Alabama (USA) to identify, assess and compare the responses. The questionnaire was based on current practices employed by users identified in research studies conducted internationally, and consisted of three parts, each

part containing questions on users' experiences related to their study of Strategic Management, aligned to the aims of the research; users' current ICT usage patterns and the impact on their studies; and the differences between the two populations. The questionnaire was reviewed by lecturers in the field of strategic management, information systems, a statistician and volunteers from the target student populations. They considered the questionnaire in terms of logic and intelligibility. Minor amendments were made on the basis of their feedback. The questionnaire was Web-based and students were requested to complete the questionnaire in their own time during November and December 2012. One follow-up e-mail was sent to encourage students to complete the questionnaire. To encourage completion of the questionnaire, it was kept as short as possible. The responses were cleaned and analysed, to eliminate instances where respondents clearly did not attempt to answer the questions. The answers to the open-ended questions were analysed and summarised in similar categories.

### Data Collection

The findings presented in this paper are based on empirical data from the residential full-time students of the University of Stellenbosch (RSA) and residential students from the University of Alabama (USA). The aims, content and assessment demands were held constant in both cases. Respondents involved in the same mode of study were compared:

- RSA group: students with on and off campus access to Blackboard/WebCT, Internet, Web 2.0 sites, etc.
- USA group: students with on and off campus access to Blackboard/WebCT, Internet, Web 2.0 sites, etc.

### Target Population and Response Rates

South African university students are currently all connected Internet users because they all have access to computer facilities on campus and/or at home as well as at work in the case of part-time students (Rudman & Steenkamp, 2009). Table 1 gives an indication of the respective populations, their response rates and the overall average response rate for the study. In total, 454 invitations to participate in the study were sent to Strategic Management students in the RSA and USA. Altogether 103 students completed the questionnaire on-line. The overall response rate of 22,7 is considered sufficient to obtain reliable conclusions (Rudman & Steenkamp, 2009).

Table 1

*Populations and Response Rates of Fulltime Students in the RSA and USA*

	Population	Response	Response Rate	Average Rate
RSA	234	57	24,4%	22,7%
USA	220	46	21,0%	

## Findings and Discussion

This part of the study describes the empirical differences between the perceptions of the RSA and USA students. The differences are compared in terms of respondents' learning experiences regarding their study of Strategic Management and the use of ICT.

### Value of Strategic Management in Practical Business Application

Aligned to the main aim of this study, the questionnaire addressed key aspects related to Strategic Management and specifically designed to determine the value of the Module in preparing students for business life, accepting that other academic attributes may well contribute in this regard. The survey questions for this part were specifically aligned to the managerial competency as identified by the Financial Mail's annual MBA study (Financial Mail, 2012). A five-point Likert scale was used where 1 means significant impact, 3 is valuable and 5 means no value. The values of 1-3 are expressed as a percentage of the total responses for a specific item as presented in Table 2.

Table 2

*Respondents' Views with Regard to the Perceived Relevance and Value of Strategy*

Components of Value of Strategic Management	Ranking of the Relevance and Value
Problem solving capability	98%
Decision making ability	95%
Team player	87%
Leadership,	89%
Written reports/cases, Creative thinking, and Implementation (practical)	88%
Business process management	94%
Communication	90%
People management	85%
Ethical dilemmas	78%
Corporate governance	74%

It is clear that most students find the study of Strategy useful and related to their actual or envisaged working environment. Their perception is that the biggest benefits from their studies are related to acquiring problem solving and decision-making capabilities. The added value of business process management and communication skills is also ranked at 94% and 90% respectively. These findings largely support those of Dierdorff and Rubin (2006), specifically as regards problem-solving and decision-making abilities. Since the majority of students at the two institutions study full-time, it could be assumed that the responses are based on their extensive involvement and experience to cases, which simulate real world business experience

### **Value of the Tools of Strategy and Management in Practical Business Application**

Aligned to the main aim of this study, the questionnaire addressed key aspects related to the tools of Strategy and Management to determine their value in preparing students for business life. The survey questions for this part were specifically aligned to the top management tools as identified by Rigby (2013) from Bain & Company's annual Top Management Tools survey ([www.bain.com](http://www.bain.com).) A five-point Likert scale was used where 1 means significant impact, 3 is valuable and 5 means no value. The values of 1-3 are expressed as a percentage of the total responses for a specific item as presented in Table 3. The average of these percentages of the nine components is 98% (ranging from 95-100%), as indicated in Table 3.

Table 3

*Respondents' Views With Regard to the Perceived Relevance and Value of Strategy and Management Tools*

Tools of Strategy and Management	Ranking of the Relevance and Value of Strategy Tools
Benchmarking	99%
Strategic planning	99%
Mission/vision	100%
SWOT Analysis	100%
Five Forces Model (Porter)	98%
Market positioning	100%
Corporate governance and ethics	95%
Customer segmentation	97%
Core competencies	97%
Leadership tools	96%
Staff engagement and communication	98%

Source: Tools of management based on Rigby (2013) and [www.bain.com](http://www.bain.com)

Strategic Management is compulsory for the students and based on the above responses appear to meet the requirements of the respondents as far as relevance and value. These tools are extremely valuable and give students a competitive advantage over other business disciplines (Hough, Thompson, Strickland, & Gamble 2011). This matter was not further investigated, but is an important area for further research. The current research at best merely provides qualitative guidelines for new course development.

### **The Role of ICT and Applications for Business Students**

All respondents (100%) had Internet access and indicated that they use ICT regularly and also created online profiles on Web 2.0 sites such as social networking and sharing sites to add value to their studies. This section focuses on the frequency of use, ICT activities and impact on their business studies,

and describes the ICT sites students often use. A five-point Likert scale was used where 1 most frequently, 3 is frequently, and 5 means least frequent. The values of 1-3 are expressed as a percentage of the total responses for a specific item as presented in Table 4.

### Frequency of ICT Access

Frequency of accessing ICT by the respondent groups reflected the following patterns: several times a day (87%), once a day (3%), a few times a week (6%), and those who did not know (4%). Both modules are partly based on group and syndicate work, and Internet use will of necessity be high. It is generally accepted that lecturers in Strategic Management, irrespective of country, encourages students to access other than the formal prescribed learning materials, especially where case studies are involved. The use of search engines could further explain the high rate of ICT and Web 2.0 access.

### ICT Activities

A five-point Likert scale was used where 1 means most frequently, and 5 means less frequent. The values of 1-3 are expressed as a percentage of the total responses for a specific item as presented in Table 4.

Table 4

#### *Range of ICT and Web 2.0 Activities*

ICT and Web 2.0 Activities	Frequency
Blogs	40%
Forums	53%
Online applications (e.g. Thinkfree, Smartsheet)	58%
Online encyclopedia and information sources (e.g. Wikipedia) and Web-based e-mail	94%
Online video sites (e.g. YouTube)	89%
Photo sharing sites (e.g. Flickr)	51%
Podcasts	58%
Really Simple Syndication (RSS) feeds (e.g. Newsvine)	49%
Virtual worlds (e.g. Second Life)	14%
Social networking sites (e.g. LinkedIn, MySpace, Facebook)	86%
Web-based Instant Messaging (MSN Web Messenger)	48%

The sites that respondents most often accessed that were of value in their online studies include: communication sites and technology, information sources, social networks, and video sites that could be expected in online distance education. Franklin and Van Harmelen (2007) state that in Web 2.0 everyday users of the Web use the Web as a platform to generate and re-purpose, as well as consume, shared content, and that with data sharing, the Web also becomes a platform for social software that enables groups of users to socialise, collaborate, and work with each other.

### **Influence of ICT on Studies**

More than 80% of the students experienced a positive influence on or investment in their studies through the use of ICT. While it is outside the scope of the current research, it is obvious that within the higher education sector, institutional response to evolving web-based technologies and user needs will largely determine the competitive advantage of universities in general and business schools in particular as they face ever-demanding future educational challenges.

### **Comparison of the Impact and Value of Strategy Studies Between the South African and the American Students**

Significant differences ( $p < 0,05$ ) were found between the two populations. Table 5 indicates these differences. A plus (+) sign indicates the components where significant positive differences were established. NSD means there was no significant difference.

Table 5

*Significant Differences Between the two Groups ( $p < 0,05$ )*

Components of Value of Strategic Management	RSA	USA
Problem solving capability	+	
Decision making ability	+	
Team player	NSD	NSD
Leadership	NSD	NSD
Written reports/cases	+	
Creative thinking (new ideas)	+	
Business process management	NSD	NSD
Implementation (practical)	+	
Communication	+	
People management	+	
Ethical dilemmas	+	
Corporate governance	+	

It is significant that RSA students experience higher value from their studies than their US counterparts. Three components did not produce any significant differences (team player, leadership and business process management). The reasons for the above findings constitute an important area for further research, especially in terms of context, given that America is a highly industrialized economy, compared to South Africa as a developing economy.

### **ICT Activities: Comparison of the Impact of Selected Activities**

Significant differences ( $p < 0,05$ ) were found between the two populations. USA students are more frequent users of online applications, video and photo sharing sites and Podcasts. A possible reason is that the broadband in South Africa is still developing and fibre optic lines are not common in rural areas. Another



reason is that lecturers develop certain material on podcasts and students must use the technology to get the full benefit of the module. The two projects reported here exemplify ways in which educational technology was used to impact on the design of the respective curricula by providing students with experiences which are difficult to provide in face-to-face environments.

### Summary and Conclusion

Although limited to the response of students in Strategic Management at two different institutions, the research showed that although both groups of students had positive experiences regarding their academic studies through ICT and Web 2.0 involvement, the overall positive experience of RSA students was significantly greater than that of their full-time USA counterparts, basically for reasons such as proximity, lack of direct on-campus interaction with lecturers, and being employed. The compelling conclusion in this regard is that apart from the fact that all academics should as a rule be conversant with new technological developments, academics involved in blended learning should be at the forefront concerning curricula that are amenable to network communication. The question for educators is: How can I increasingly integrate face-to-face lecturing and ICT in such a way that students' perceptions of value also increase?

In summary, this exploratory research has revealed new and challenging insights with regard to the value of Strategy and the use of ICT/Web 2.0 technologies that institutional management, educators and students should be aware of. For institutional management, scenario planning and continuous cost-benefit analyses should be done to pre-emptively monitor academic and related viability of new emerging technologies to remain at the frontiers of academic development and effective programme delivery. This would apply to both on-campus and distance learning. For educators, the challenge of being able to adapt curricula and capitalise on the availability of new, evolving technologies will remain a continuous challenge, aspects that could enhance the competitive advantage as well as the image of an institution.

For students, the optimal use of new technologies to enhance their studies, as well as selecting the institution that can deliver on these expectations will become increasingly important in future. In closing, institutions of Higher Education should be at the cutting edge of new developments in Web 2.0 and related ICT technologies to ensure that curricula and learning experiences remain relevant and market-related, also in the interests of the broader society

### Notes

1. Strategy is the ability to plan and formulate, implement and align decisions that motivate all people, all departments, business processes, customers and financials in an ethical manner.

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