The Changing Face of E-Commerce in South Africa: 2001 - 2004

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Abstract

E-Commerce has revolutionized business the world over. South African business has been revolutionized as well. The Internet has created new income generation streams, made communication cheaper, easier and more efficient and the Internet has also provided a new medium for competition and collaboration alike. However, online retailing has seen a slowdown in South Africa since 2001. The aim of this study was to determine whether there have been changes in E-Commerce from 2001 to 2004, and what these changes were. A questionnaire was sent to 122 companies with an Internet presence. This study has revealed that there have been improvements in E-Commerce in South Africa with respect to income generation, customer service and cost reduction. However, it is evident that E-Commerce has not reached its full potential and needs to be given greater strategic importance within corporate plans. Other recommendations included: designing effective web sites, improving online security, expanding infrastructure to a wider audience, improving education and developing an e-culture in the country. This study has shown that there is immense growth potential for E-Commerce in South Africa. However, companies need to be more creative in how they harness the power of the Internet. This challenge is not one for private companies alone but requires public, private partnerships to ensure long term improvements.

Keywords

E-Commerce in South Africa, B2B E-Commerce, B2C E-Commerce, Generating Online Sales, Impact of the Internet on Business

1 Introduction

The Internet is often referred to as a revolution rather than an evolution due to the manner in which it has taken the world and more so the business world by storm. The Internet has radically changed the way business is conducted from a bricks and mortar to a clicks and mortar format. Trade is no longer limited by the boundaries of space and time. Virtual stores make money even when physical stores are closed and customers enjoy the convenience of shopping and transacting from the safety and comfort of their homes. Although largely prevalent in Western first world countries, the Internet and its main application E-Commerce are growing in third world countries. African and more especially South African organisations are rapidly adopting E-Commerce to replace, supplement or complement their physical outlets. Business-to-business (B2B) transactions have proven to be very profitable whereas business-to-consumer (B2C) transactions has not taken off, like it has elsewhere in the world, due to numerous challenges including access to the Internet and literacy. This paper examines the changes that have taken place in E-Commerce in South Africa between 2001 and 2004, from a management perspective.

2 Background

2.1 What is E-Commerce?

There are a number of definitions that are used to describe E-Commerce which includes; the conducting of business communication and transactions over networks and through computers, a term for all kinds of business that are established electronically especially over the Internet, it refers to shopping on the World Wide Web (Schneider 2004). Electronic Commerce suggests the buying and selling of goods and services using all electronic media including cellphones, kiosks, fax machines and the Internet. Internet commerce, however, is the buying and selling of goods and services only on the Internet. Although there is a difference between E-Commerce and I-Commerce, E-Commerce is generally used to describe transacting on the Internet.

2.2 Advantages of E-Commerce

The Internet is a new means of making profit. However, it has helped organisations improve customer satisfaction by offering them twenty four hour convenience and customer care. Other advantages include:

Lower overheads: E-businesses no longer need to carry large inventories and as such require less space which saves on rent. Brochure printing costs are obliterated using online brochure-ware. Due to businesses becoming smaller, fewer staff is required.

Focused markets: According to Barker & Gronne (1996), the Internet has the greatest focus of all advertising media and is targeted specific markets. This ensures that the advertising message is delivered to the intended audience rather than wasting efforts on mass audiences.

Reducing transaction costs: According to Gordon et al (Turban, 2004), using technology to conduct business reduces the need for paper, records can be stored on databases and backed-up onto media such as CD-ROM's, orders can be placed by the customer directly into an online ordering system, reducing the need for, and cost of order clerks. Customers place their own orders which reduces the liability costs for staff related errors or omissions.

One of the greatest benefits of E-Commerce is that the customer is in control of the buying experience. He/she can choose when or where they purchase without any interference from other shoppers and intruding sales people.

2.3 Challenges Facing E-Commerce

As much as the Internet has benefited E-Commerce, it also introduces new challenges that managers have to be wary of and take measures to counter them. Some of the common problems include: security of transactions, threats from cyber criminals, privacy of the organisation and its clientele, unfulfilled deliveries. Other issues include trust, culture, language and infrastructure (Schneider 2004). Lesser known issues revolve around deviant behavior such as the abuse of an organisations Internet facilities and addiction to the Internet (Singh 2004a). Turban (2004) classifies some of the challenges as technological and non-technological limitations. One of the technological limitations he identifies is the high cost and inconvenience of accessibility to the Internet. The cost of connectivity in South Africa is extremely high for the home user, as the dial-up service is controlled by a monopoly. One of the non-technological limitations identified by Turban (2004) was the issue of trust. People do not as yet trust paperless, faceless transactions. According to Singh (2001), South African Internet users did not engage in E-Commerce because they did not trust the Internet and their own ability to use the technology properly, language and literacy posed a major problem as the language of the Web is English which is not the mother tongue of the majority of South Africans many of whom are illiterate, and the lack of access to the infrastructure also made E-Commerce inaccessible to the South African consumer. Mc Kinnell (2000) reported that South African shoppers have no motivation to shop online, because it is more difficult, and even after discounts, some sites are more expensive than purchasing at the local mall. Other complaints from users were the lack of delivery from suppliers, and online payment as most of the population did not have credit cards (Madonko 2000).

In order to be successful in E-Commerce in foreign markets, Schneider (2004) suggests that businesses have to "think globally, act locally". Many web sites are taking this advice and changing their approach. The world's leading search engine Google offers searches in four of South Africa's eleven official languages.

2.4 Who engages in E-Commerce?

The three players in the E-Market are businesses, consumers and governments. Governments do not sell their services online; however, they purchase labour, goods and services online. The business, consumer relationship has given rise to four classifications based on the nature of transactions between the parties as illustrated in Figure 1. It is evident from Figure 1 that all the relationships have always been in existence; they have just been given three letter acronyms which is the norm in the IT industry. Businesses that sell to other businesses are generally manufacturers selling to resellers or wholesalers selling to retailers. B2C is the relationship between the seller and the end user of the products or service.

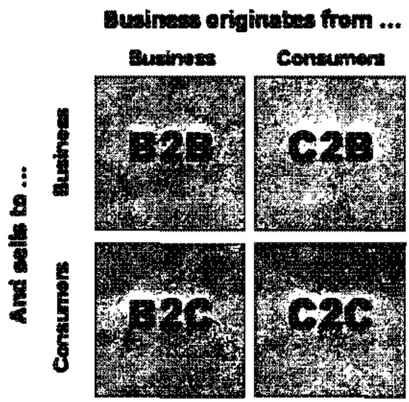

Figure 1: E-Commerce Classifications Adapted from: Rayport & Jaworski, 2002

C2C has also been a popular means of transacting using the classified sections of newspapers and magazines. C2B transactions also take place in the real world especially where people sell their labour to industry. These classifications are important when measuring the success or failure of E-Commerce.

2.5 Current Trends in E-Commerce

E-Commerce initially took off with great expectations from businesses and investors alike. The turn of the century saw a number of failing dot.com businesses. Some of the reasons for the failure of these organisations include: products were not appropriate for the

Internet, they did not deliver customer value, they failed to develop a profitable business model, a number of bad ideas were proposed and there was an over-reliance on advertising as a revenue source (Schneider 2004, Turban 2004). According to Strauss et al (2003), the downturn in E-Commerce was termed the trough of disillusionment. However, they have predicted that 2004 into 2005 would signal a slope of enlightenment seeing a trend towards a positive cash flow and 2006 onwards would see the beginnings of a plateau of profitability where E-Business just becomes business. Turban (2004) calls this turnaround the second wave. One of the characteristics of the second wave is the reduced hype and a focus on the basics of business. A major Internet trend recently has been the growth in global Internet users as illustrated in Figure 2.

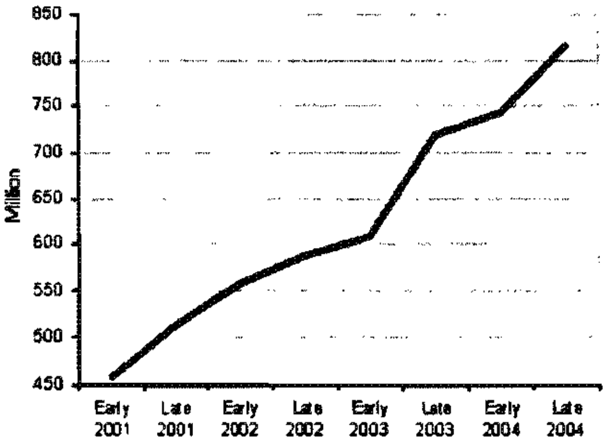

Figure 2: Growth of Global Internet Users Adapted from: Internet Growth Statistics, 2005.

It is evident from Figure 2 that the number of Global Internet users has grown steadily since 2001with just over 500 million users to 719 million users in early 2004. From early 2002 to the same time in 2003, growth tended to flatten out. However, late 2003 saw a rapid increase once again. Late 2004 recorded almost 1 million new users. Total Internet users for 2004 accounted for 12.7% of the world's population (Internet Growth Statistics ... 2005). For statisticians it would seem that 12.7% of the world's population is not a significant market. However, for online sellers, the growth in users signifies a growing potential market. Due to the growth in users, it could be assumed that online sales would grow as well. Table 1 illustrates the growth pattern of global E-Commerce. It is evident that like the user growth, there has been a steady growth in total online revenues.

Year	B2C US$	B2B US$	Total US$
2001	90 bn	240bn	330 bn
2002	180 bn	410bn	590 bn
2003	220 bn	680bn	900 bn
2004	300 bn	1100bn	1400 bn

Table 1 Online Purchase Revenues 2001 – 2004
Adapted from: Statistics for Online Purchases, 2005.

Business to consumer (B2C) revenues has also risen steadily from $90 billion in 2001 to $300 billion in 2004. In South Africa, the number of online retailers has grown from 215 in 2001 to approximately 719 in 2003 and total online retail sales has grown from R162 -million to R341-million over the same period (Goldstuck 2004). It is evident that the growth in online sales in South Africa has been slow, due to issues previously mentioned such as trust, cost of connectivity, and inadequate infrastructure and access to it. However, according to Goldstuck (2004), the online market is dominated by the top eight online retailers who account for some 80% of online sales. Two of these retailers namely Pick 'n Pay and Woolworths happen to be giants in the offline world as well.

It is evident that globally and in local economies, there have been positive changes in E-Commerce, which raises the question "what changes have firms experienced?"

3. Methodology

3.1 Motivation for the Study

Singh (2001) found that although South African organisations were present online, they were not making optimal use of the advantages offered by the Internet. According to Goldstuck (2004), there has been a slowdown in online retail in South Africa. However, he has shown that there has been an upward trend between 2001 and 2003. This study aims to determine what changes, if any, firms have experienced since 2001.

3.2 Research Problem and Objectives of the Study

The aim of this study was to determine what changes firms have experienced since 2001. In answering this question, this study sought to determine:

- The reasons why businesses used the Internet
- What impact the Internet had on income generation, cost saving, and customer service
- Management impressions of online business
- Recommendations to improve online sales

3.3 Research Tool

A questionnaire that was developed by Singh (2001) was used for this study in order to draw comparisons between the two studies. The questionnaire was composed of open ended and closed questions that the researcher had devised to test criteria such as reasons for using the

Internet for business, impact of the Internet on business and managers impressions of online business. The questionnaire was hosted online which was linked to a database. Both these approaches were improvements on the original questionnaire that was sent by post and captured manually.

3.4 Sampling

A convenience sample of 250 companies with an Internet presence was chosen for this study. Only 122 managers responded. The sample was slightly larger than that used in 2001 and included 60 of the original companies that participated in that study. Of the nineteen original companies that did not respond 10 had closed down their online operations. An e-mail together with a link to the questionnaire was sent to managers of the firms involved in the study.

4. Results

4.1 Composition of the Sample

Figure 3 illustrates the industry's in which the firms operated. A significant difference between the two studies shows that more Educational institutions (28.7%) had an online presence, than organisations from other sectors. Similarly, there were more financial institutions in the 2004 study (15.6%) than those in the 2001 study (8.9%). However, there were more manufacturers in the 2001 study (25%) than there were in the 2004 study (15%). Retail and Computers showed minimal changes between the two studies.

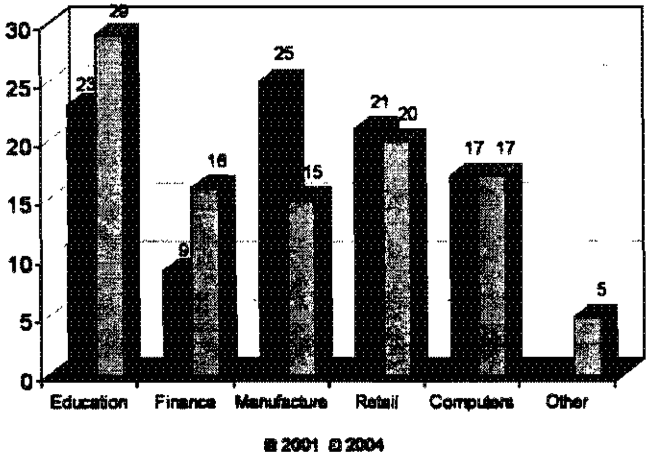

Figure 3: Composition of the Sample

A new category of other represents 5% of the sample; however, these were unspecified making it difficult to determine what sector they came from.

4.2 Reasons for Conducting Business Online

According to Gow (1997), America's top 100 companies went online to achieve cost savings, improve customer care, generate new revenue and conduct marketing among other reasons. Figure 4 illustrates the reasons South African businesses conduct business online. Three categories namely cost saving (23%), customer service (19%) and marketing (18%) have decreased from the 2001 study as reasons for being online. However, income generation (17%) and other (23%) have become important reasons for being online. Some of the other reasons for being online included: extending the reach of the organisation, reducing transaction costs, reducing paper work and paper flow, and cutting back on staff.

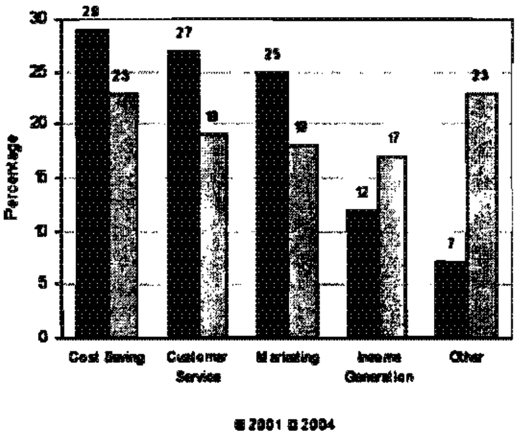

Figure 4 Reasons for Conducting Business Online

It is clear that the categories as proposed by Gow (1997) although still significant are being overtaken by other reasons for businesses to be online. It is a concern, however, that two key success factors; cost saving and customer service have dropped in importance as reasons for being online.

4.3 Impact of the Internet on Income Generation

In 2001, 82% of the respondents reported 0-9% additional revenue generated by being online and the other 18% reported 20-29% additional revenue (Figure 5).

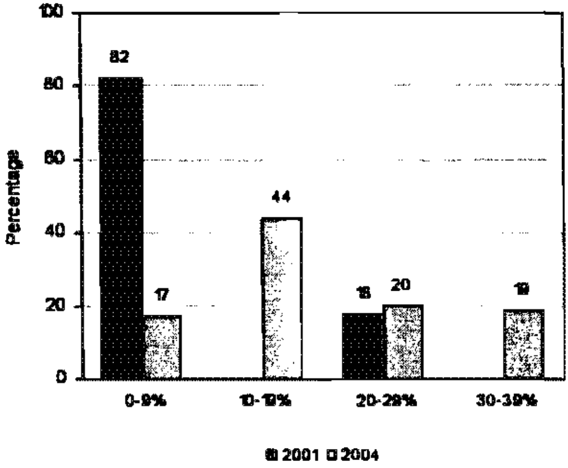

Figure 5 Additional Revenue from Online Sales

In 2001, 82% of the organisations reported generating 0-9% additional revenue from online sales, this category dropped to 17% in 2004. However, overall, additional revenues increased with 44% of organisations reporting 10-19% additional revenue, 20% reporting 20-29% additional revenue and 19% reporting 30-39% additional revenue. The industries that generated additional revenue from online sales were: Education (28%), Retail (20%), Computers & Technology (17%), Financial (16%), Manufacturing (15%), and other accounting for 4%. It is evident that cumulative online sales revenues have been increasing in South Africa even though according to Goldstuck (2004), online retail sales have slowed down in South Africa and globally as well (Mason 2004).

4.4 Impact of the Internet on Cost Saving

It is evident from Figure 4 that managers in this study saw cost saving as an important factor for trading online. Fifty percent of the organisations achieved cost savings of 19% and less. The other 50%

achieved costs savings between 20 and 40 percent. Table 2 lists the factors that contributed to cost savings.

Variable	Min	Max	Mean	Sd.
Advertising	1	5	3.319	1.472
Overheads	1	5	3.131	1.212
Communication	1	5	2.508	1.461
Printing	1	5	2.286	1.016

Table 2 Factors that Contributed to Cost Saving

Advertising costs in traditional media such as television and newspapers are extremely high in South Africa. According to Barker and Gronne (1996), the cost of advertising online is very low. However, its reach is limited. According to Strauss et al (2003), a problem associated with online advertising is that advertisers are unable to pin point who they are reaching demographically, geographically and psychographically.

Overheads such as rent, storage and handling costs, and salaries are much lower as a result of being online. E-mail, frequently asked questions pages on websites and chat rooms reduce the exorbitant costs of telephone and fax based communication. Websites serve as brochure ware that carries more information with text, video, animation and sound for a fraction of the cost of a glossy printed brochure, newspaper or television advert.

4.5 Impact of the Internet on Customer Service

In-store customer service and support takes place during business hours. A customer requiring support after hours has to wait until the next business day. However, due to online support, organisations have seen an improvement in customer service (Figure 6)

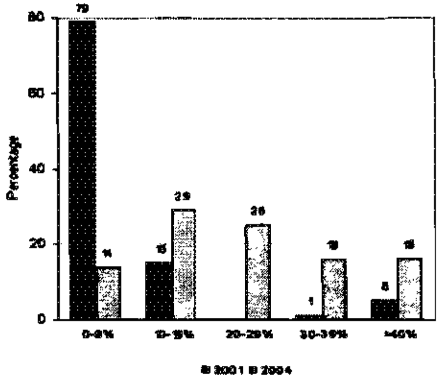

Figure 6 Improvements in Customer Service

In 2001, the majority of managers (75%) reported 0-9% improvements in customer service, 15% reported 10-19% improvements and 5% reported more than 40% improvement in customer service. The 2004 study has shown a major drop in the 0-9% category. However, there is a more even spread with an increase in improved customer service across all categories.

Respondents were asked to rank the factors that contributed to improved customer service. These factors are illustrated in Table 3.

Variable	Min	Max	Mean	Sd
Cheap communication	1	5	4.336	0.941
Frequently asked questions page	1	5	4.229	0.652
Mass Information	1	5	2.852	1.033
Other (unspecified)	1	5	2.040	0.982
Instant feedback	1	3	1.540	0.562

Table 3 Factors that Contributed to Improved Customer Service

Communication via e-mail is extremely cheap in relation to phone calls and faxes, hence organisations were able to provide customers with detailed information at minimal cost as and when they required it. Frequently asked questions pages (FAQ's) ranked very favourably where the maximum rank was 5 and the minimum rank 3. Customers who required urgent product support could obtain it from a website 24/7/365. Instant feedback with a maximum rank of 3 was not considered to be a major factor. It is important to note that these results are based on the perceptions of managers. According to Schneider (2004), customers rated E-Commerce sites to be average or low in customer service due to slow response times and inadequate integration of call centres with their web sites.

4.6 Management Impressions of E-Commerce

Figure 7 illustrates management satisfaction with the state of E-Commerce in their organisations. These impressions are based on overall performance in terms of: income generation, cost saving, and customer service. It is evident that in 2001, the majority of the managers questioned, (60%), found E-Commerce to be acceptable, with 13% who were extremely dissatisfied.

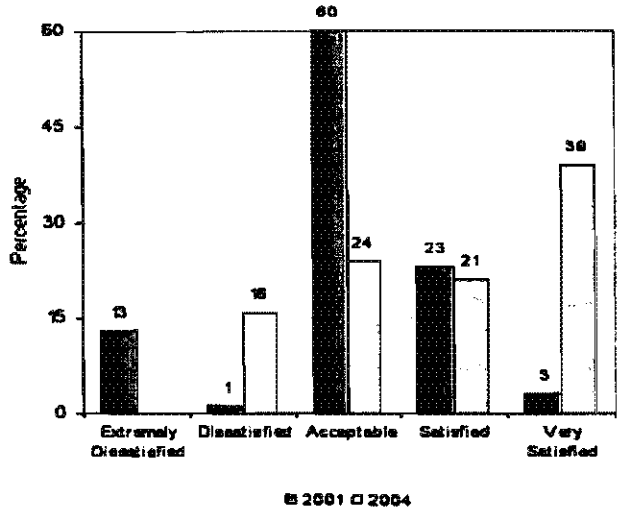

Figure 7 Management Impressions of E-Commerce

The current study has shown that there is a positive skew with 84% of the respondents indicating their impressions as acceptable (24%), satisfied (21%) and extremely satisfied (39%). This could be attributed to the fact that E-Commerce has passed the media hype, through the trough of disillusionment and is moving towards real returns (Strauss et al 2003). Furthermore, users of E-Commerce probably see the usefulness and ease of use of E-Commerce and are therefore more willing to use the technology (Davis 1993).

4.7 What is Needed to Improve B2B E-Commerce?

The majority of the respondents (84%) felt that E-Commerce is South Africa was strengthening and that a turnaround could be expected soon. They felt strongly that in order to improve B2B in South Africa, the following requirements needed to be met: effective websites (30%), improved infrastructure (27%), an e-strategy (20%), improved security (13%), and an e-culture (10%), as illustrated in Figure 8.

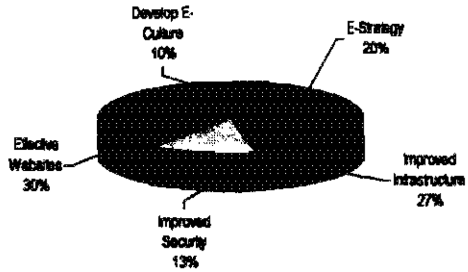

Figure 8: Requirements for Successful B2B

It is evident from the list, that some of the requirements as recommended by the respondents can be implemented by businesses such as website design, improved security and e-strategy. However, improved infrastructure is the sole responsibility of the state. It is important to note that Government should also have an E-Strategy in place that would incorporate plans for developing an E-Culture and thereby enabling e-commerce.

5. Recommendations

It is evident from the results that there have been positive changes in E-Commerce in South Africa from 2001 to 2004. These changes have been evident in all aspects of this study namely income generation, cost saving, and customer service. These positive changes have resulted in managers having a positive impression of E-Commerce. However, Goldstuck (2004) has highlighted the fact that there has been a slowdown in online retail sales. What should organisations be doing to reverse the trend?

5.1 Customer Service

Microsoft suggests that organisations should use the web creatively to deliver customer service (Give Them Online … 2005). Satisfied customers become loyal customers and would think twice before shopping elsewhere. Some of the suggestions included: FAQ's, information and updates, policies, order tracking and order histories, and contact information. FAQ's are in use by South African companies. New product information and alternate uses could be provided on the company website. The company returns and exchange policy should be available online to prevent any misunderstanding after the purchase. Order tracking allows a customer to determine for themselves when to expect delivery. Order histories such as favourite buys or a previous shopping list speeds up shopping which saves customers time and money. Providing physical contact details is reassuring to the customer that they have someone to talk to or a place to visit if there are problems related to online purchases.

5.2 Income Generation

In order to increase online income, businesses need to attract traffic to their websites, which requires extensive offline advertising (Singh 2002). They also need to develop effective websites and provide adequate online security.

5.2.1 Design Effective Websites

Rayport & Jaworski (2002) suggest that web designers need to use the 7C's model namely; content, context, connection, communication, community, customisation and commerce when designing effective web sites. The 7C's ensures that the customer sees what he/she needs to see and that they can communicate with the site before and after the sale. Web designers need to balance aesthetics with functionality that is, a website need not be populated with fancy backgrounds, pictures and animations; however, the site must work immaterial of whether a person connects via a dial-up link or a leased digital line.

5.2.2 Improve Online Security

Secure transactions will provide customers with the additional reassurance that they require in order to purchase online. Some of the larger sites such as Standard Bank and Kulula.com offer customers 128 bit encryption which claims Scholtz (2005) is safer than using one's credit card at a restaurant where a waiter has access to all the details of a customer that are required to conduct a transaction online. Businesses need to develop a privacy policy which is available for the customer to see on the site. They should also register their site with authentication authorities such as Verisign. Digital certificates are further proof to customers that their transactions are safe and secure.

5.3 Cost Saving

By its very nature, the Internet reduces overhead costs. This should be integrated into an organisations competitive strategy. Standalone e-strategies do not make sense where businesses run an offline and online service. Porter (2001), Botha et al. (2004) and Boddy et al. (2004) advise strongly that businesses integrate their E-Strategy with their IT strategy which must also be aligned to the broader organisational strategy. For example, an organisation pursuing a lowest cost producer strategy would use IT to enable low cost manufacturing and the Internet could be used as a means to market and distribute products at a low cost. In this example, the business strategy guides the IT strategy which guides the E-Commerce strategy. In organisations that only have a web presence, the E-Strategy is the business strategy. However, businesses need to concentrate on the core values and basic rules of business that is to concentrate on the customer and create customer value which will stimulate sales.

5.4 Other Recommendations

Some of the suggestions made by the respondents included: expanding infrastructure to a wider audience, improving education and developing an e-culture in the country.

5.4.1 Expand Infrastructure

Developing ICT infrastructure is one of the Government priorities in South Africa. However, infrastructure alone is not enough to generate online sales. People need to be educated and empowered to use the Internet for purchasing. There are a number of initiatives that the Government in conjunction with private partners are driving to make telephony and electricity available to rural areas of South Africa (Singh 2004b). Once the infrastructure is available, people will have access to the Internet, and its related applications such as e-commerce, e-mail among others.

5.4.2 Develop an E-Culture

According to Singh, (2004b), universities and other educational institutions need to inculcate in learners that they are a part of the E-Society and as such they should lead the masses towards embracing the change.

Online organisations have to reinforce in customers the value of shopping online. They must be constantly reminded that online shopping is easy, it is cheaper and it offers 24 hour convenience.

6. Conclusion

This study has shown that E-Commerce in South Africa is growing. It is only a privileged few who have the access and purchasing power to shop online currently. However, major strides need to be taken to expand the market. This study has been limited in that it has not examined the value of business-to-business transactions, and it has also not been able to quantify the value of foreign sales against domestic sales. These issues however, lend themselves to further study.

South Africa is a rapidly developing country, and with it ICT is developing equally rapidly. Making E-Commerce work requires an investment from both the public and private sectors. Public, private partnerships will aid in driving E-Commerce forward in South Africa. It is evident from the study that organisations need to improve their online customer service, they have to design more effective web sites and they need to improve their online security. However, there is an obligation on the Government to make infrastructure available to enable e-commerce and to ensure that e-commerce awareness and use is promoted.

E-Commerce and an E-Culture have the potential to change and grow as younger generations embrace the technologies and influence others to embrace it as well.

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