DIGITAL COMMUNICATION:

PERCEPTIONS OF RURAL COMMUNITIES ON THE SAFETY OF E-COMMERCE TRANSACTIONS

By

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A thesis submitted in fulfilment of the requirements for the degree of

Masters in Communication Science

University of Zululand 0842541103

2012
ABSTRACT

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Advances in electronic service technology have created great opportunities as well as threats to organizations in various business and services sectors. As such businesses, either willingly or reluctantly, are increasingly embracing the Internet as distribution channel in order to remain competitive or gain market share. With particular reference to e-services, absence of accurate information on factors that have influenced user’s behaviour to adopt or use e-services could mislead an organization into adopting unhelpful solutions as it strives to accelerate the implementation of e-services. The study is undertaken by a student who lives in the heart of a rural community in South Africa and also attends a University which is based in a rural settlement. This study, based on the perceptions of rural communities on the safety of e-commerce transactions, investigates factors that influence adoption and usage of e-service, especially, in eNkandla rural communities. Factors were empirically tested against data collected from four hundred participants using survey questionnaires. Perceived complexity was found to be the most significantly related factor affecting e-service adoption in rural communities of eNkandla, followed in turn by privacy and compatibility. Quality of the Internet and its relative advantage also had a notable effect on e-service usage and adoption in eNkandla rural communities.
ETHICAL STATEMENT BY RESEARCHER

With the signature below I, Makhosazane, Buselaphi Mpungose hereby declare that the work that I present in this thesis is based on my own research, and that I have not submitted this thesis to any other institution of higher education to obtain an academic qualification.

____________________________________                    _____________________
Miss. M.B Mpungose                                                            Date
ACKNOWLEDGEMENTS

Firstly, I would like to extend my acknowledgements to God Almighty in heaven for giving me this opportunity and the guidance as from the beginning of degree until now and He is still with me.

All the lecturers from the Department Communication Science who helped me to grow up academically & professionally since I came to the University of Zululand their support are well appreciated.

I here wish to convey my sincere gratitude to the following people who contributed positively towards the success of this study.

- God the Almighty in heaven for the power, love and light towards myself and all motivational speakers who contributed positively in my life.

- To my loving parents Mr and Mrs Mpungose

- To my fiancé Lungani Sikhakhane for their unconditional care, love, moral and financial support.

- To my Supervisor Professor H. Rugbeer for his proper supervision of this study, their critical comments, guidance, patients, inspiring encouragement and support which made it possible to complete this study.

- I wish to further pass my gratitude to all of my friends and colleagues for their support and suggestion

- The authors whose works have been sited, the participants for agreeing to participate in this study.
WRITING CONVENTIONS

The following conventions are used in this study:


2. The (consumer & customer) and (e-commerce & e-banking) are used interchangeably in this research.

3. Illustrative tables and figures are all given as figures 1-66 and table 1-14 in their chronological sequence of appearance.

4. A conscious effort has been made to limit the use of footnotes as possible in order to facilitate the uninterrupted reading of the theses.

5. For commonly use terms full terms are used in heading.

6. American English is used.

7. Relevant material relating to e-commerce was tracked down from website. Such website addresses are included in the theses, both for verification purposes, and for acknowledgement of the source of information. An example of a typical website address is: http://www.itu.int/osg/spu/wsism-themes/UNMDG/IFLA-Glasgow.pdf. The World Wide Web (www) is transient and ever changing, therefore one should expect that websites from which information is gathered will be offline or may alter the contents of the website a period of time.

8. In instances where the electronic document has been downloaded from a website, the author is given, followed by the year as in: Schneider (2003:66).

9. The bibliography has been organised alphabetically.
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Chapter 1

ORIENTATION

INTRODUCTION
The aggressive pressures and the spiraling requirements of consumers have prompted the banks to develop new technologies and tools to cope with consumer needs. Singh & Malhotra (2010:14) explain that “Internet banking refers to the use of Internet as a delivery channel for the banking services, including traditional services, such as opening an account or transferring funds among different accounts, as well as new banking services, such as electronic bill presentment and payment, which allow the customers to pay and receive their bills on a banks website”. Such services were extended to online bill payments, transfer of funds between accounts and cash management services for corporate institutions. The banks use Internet banking technology to meet the ever-increasing competition. It has also emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labor intensive methods with automated processes thus leading to higher productivity and profitability. Internet-based electronic banking is one of the newest and least researched but most promising delivery channel for retail banking services. Internet banking services have revolutionized the banking industry worldwide.

This study intends to examine safety issues related to internet banking from a rural perspective.

MOTIVATION FOR THE STUDY
Schneider (2003:66:24) states that “the Internet became popular at about 1994, when the first Internet online shopping started, it took about five years to introduce security protocols (procedures) for consumer protection”. By the end of 2000, many European and American business companies offered their services through the World Wide Web (WWW). People began to associate electronic commerce (e-commerce) with the ability to purchase various goods via the Internet using procedures which were assumed to be secure.
According to Debeer (2008:34), “electronic commerce, commonly known as ‘e-commerce’ or ‘e-Commerce’, or ‘e-business’ consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. The amount of trade conducted electronically has grown extraordinarily with widespread Internet usage”.

According to Bora (2002:56), “the greatest advantage of Internet banking perhaps lies in the fact that customers are no longer required to wait in long and wearisome queues of the banks to request a financial transaction or statement. Bora (2002:56), also states another important advantage of Internet banking is that it has made the opening of an account quite simple, easy and without much paperwork. The same flexibility can be observed even while closing an account. One could also apply for bank loans without personally visiting any local branch of one’s bank”.

According to Rathswohl & Winer (2000:33), money transfers are much faster. Simple day-to-day items have become much easier to access when doing online shopping. The demographic constraints have become eroded with the use on online shopping. As a result, one could easily carry out stock trading, exchanging bonds and other investments with the help of Internet banking. All these features have made Internet banking ideal for people who make a number of financial transactions each day or for those who are far removed from banking halls.

Rathswohl & Winer (2000:33) further state that Internet banking also offers further benefits of making financial transactions possible outside normal office hours. Consumers are no more restricted by traditional banking hours. So, one can compare the services of different banks and choose the option which satisfies one’s individual needs and requirements.

Rathswohl & Winer (2000:33) further argue that while online shopping appeared to become globally fashionable, this form of shopping was largely accepted by first world countries and urban communities. Safety of online shopping has been a major drawback to its success. Consumers were, to some extent, pacified by use of anti-spam software. According to
Chaudhury & Jean-Pierre (2002:44) the acceptance of, as well as the use of, digital computing by rural communities has been very slow. This led to the formation of many forums who investigated the concept of the ‘Digital Divide’. The rate of Internet penetration into rural communities has been slow but steady. Subbiah (2002:23) maintains that while rural communities accepted the use of new technology for information purposes, a large percentage of them are still skeptical about the use of the World Wide Web for money transactions.

This study will investigate how rural communities can be encouraged to take advantage of using internet banking and online shopping so that rural communities could become part of the global community.

**STATEMENT OF THE PROBLEM**

According to Ghaith *et al.* (2010:26) state that there are a various of studies which indicate that the positive effects of online shopping for rural communities far override the negative consequences of these transactions.

This study addresses the following core question:

How can rural communities be encouraged to accept the concept of online shopping and banking?

A number of factors influence community decisions about how and when they will use this new technology. The idea is to develop a Technology Acceptance Model (TAM) for use by rural communities in KwaZulu-Natal.

**AIM**

The aim of this study is to create awareness of e-commerce transactions, so that rural communities may understand the advantages and disadvantages of the e-commerce transactions. Also, there is a need for a technology acceptance model for rural communities so that they could benefit from the advantages of Internet transactions. The model will need to address fears which rural people harbour about technology and finance.
Objectives of the study

1. To identify the fears and superstitions that rural people have about financial transactions in general.

2. To understand the fears and superstitions that rural people have about the Internet.

3. To understand the fears and superstitions that rural people have about electronic financial transactions.

4. To understand the perceptions (advantages and disadvantages) that rural communities have about electronic banking.

5. To understand the perceptions (advantages and disadvantages) that rural communities have about online shopping.

6. To understand the process that can be followed to alleviate fears which rural communities have about electronic financial transactions.

7. To develop a technology acceptance model for rural communities with regards to electronic banking and shopping.

Research Methodology

This study uses qualitative and quantitative research methods. Bless &Smith (2006:55) support the use of these research methods this stance by stating that qualitative and quantitative surveys are important as it determines how well data will be analysed. The surveys indicate that in some cases quantitative measures would be meaningless unless supported by a qualitative argument.

The research is undertaken in the eNkandla rural community of KwaZulu-Natal (South Africa). Perceptions and attitudes on the availability of basic needs of communities are surveyed. Stratified random sampling allowed the researcher to divide the population into various groups. The target population of this study was consumers from rural communities. Data were collected
by means of a comprehensive literature review and through the administration of in-depth questionnaires. The questionnaires were examined by the supervisor and other professionals in the field of communication to ascertain whether the instrument would adequately test what the study intended to achieve (Bless & Smith, 2006). The main tool for collecting data in this study is the questionnaires and semi-structured interviews. Finally, responses from the collected data are encoded and analysed in the statistical software program called MoonStats.

**Envisaged value of research**

This study provides a Technology Acceptance Model which can be used to encourage rural communities to embrace electronic communication for the purpose of buying goods which are normally not available in rural settlements and well as to engage in electronic banking. This will, in many ways, empower rural communities as well as accelerate globalization.

**Defining operational terms**

The following operational terms are defined:

**Perceptions**

In this study, perception refers to the ideology which rural people have about the conduct of financial transactions online.

**Rural communities**

Rural communities are places which are far removed from the city centres. These would include farm villages and isolated small towns.

**Safety**

Safety could mean being protected from danger or from exposure to something that causes health or economic hazard or loss. It can include protection of people or of possessions.

**Digital communication**

According to John & Sons (2012:1-4), digital communication is the physical transfer of data over a point-to-point or point-to-multipoint communication channel. Examples of such channels are
copper wires, optical fibers, wireless communication channels, and storage media. The data is represented as a magnetic signal.

Data transmitted may be digital messages originating from a data source, for example a computer or a keyboard. It may also be an Analogue signal such as a phone call or a video signal. In this study, digital communication refers to digital messages which relate to money transfer. This source coding and decoding is carried out by electronic coding equipment.

**E-COMMERCE TRANSACTIONS**

According to Daniweb (2007:18) e-Commerce is a process of performing online business through one’s website, usually to sell or buy a product. Payment is usually received through a credit card. For the purpose of this study, e-commerce transactions relate to simple exchange of money online from a personal perspective.

**ETHICAL CONSIDERATION**

Community’s cultural values and belief systems will be respected when their opinions about trust are expressed. Participants will be assured that their responses will be confidential and respected. Information will be captured privately and confidentially. Due respect will be given to authors work. They will be acknowledged for their work.

**LIMITATIONS OF THE STUDY**

This study will be conducted in the e-Nkandla rural community of KwaZulu-Natal. Recommendations cannot be generalized. However, it is possible to use these recommendations as guidelines in other communities.

**OVERVIEW OF THE STUDY**

This thesis is divided into the following chapters:

**Chapter two:** This chapter provides an historic overview of Electronic Communication.

**Chapter three:** This chapter outlines the practice of online shopping.

**Chapter four:** This chapter outlines the practice of online banking.

**Chapter five:** This chapter examines the risk of online transactions.

**Chapter six:** Chapter six provides an overview of money and African culture
Chapter seven: This chapter provides a theoretical framework for encouraging rural communities to participate in the global economy.

Chapter eight: This chapter provides an overview to the research techniques used in this study.

Chapter nine: This chapter presents the findings of this study. It presents perspectives of respondents who volunteered to participate in this research findings are provided in a form of graph and tables with written explanation.

Chapter 10: This chapter highlights the conclusions and recommendations of the study.

CONCLUSION
A personal relationship between customers and bankers has many boundaries, especially in the rural areas. Research by Guru et al. (2000:26) reported that 90 percent of some consumers of the South African rural people have generally been afraid of new technology. These consumers may not have the knowledge or know-how in dealing with computers specifically and thus trust human beings more than computers and machines. Their fear for computers and technology generally grows and eventually develops into a phobia for technology. Thus, technology phobia can also be a factor affecting the customers’ reluctance to opt for Internet banking. This chapter has provided an overview of this study. The next chapter is the development of electronic communication.
Chapter 2

DEVELOPMENT OF ELECTRONIC COMMUNICATION

INTRODUCTION

In the previous chapter the overview of the study was presented. In this chapter the historic development of communication is overviewed. Communication can range from very subtle processes of exchange, to full conversations and mass communication. Schramm & Wilbur (2007:5) state that “human communication was revolutionized with speech perhaps 200,000 years ago. Symbols were developed about 30,000 years ago and writing about 7,000. On a much shorter scale, there have been major developments in the field of telecommunication in the past few centuries”.

THE AGE OF HUMAN COMMUNICATION

According to Schramm & Wilbur (2007:4-5), the stages in human communication are associated with the development of speaking, writing, printing and mass media (newspaper, magazine, radio, film and television).

Schramm & Wilbur (2007:6-9) also maintain that “the story of human communication began about half a million years ago. It included a small group of prehistoric hunters who lived in caves. These humans walked upright and were physically incapable of producing speech. They could produce vocal sounds, but their voice boxes had not yet develop sufficiently to generate and control the indicate sound of speech”.

Schramm & Wilbur (2007:6-9) further state “although we have no record, scientists assume that prehistoric hunters’ communication was similar to animal communication”. That is prehistoric people receive and exchange information about the environment (for instance, the presence of danger or food) communicated with each other through gesture, posture and facial expressions, and expressed a limited number of sound such as grunts and cries. Over time, people began to move out of the cave and settle in small communities. The need to communicate played an
increasingly important role in their ability the first major revolution in the means of communication available to human beings.

**The age of speech and language**

According to Delia (2008:10) scientists estimate that speech and language originated some 400,000 years ago among people who had evolved to physically resemble human beings today. “Not much is known about the origins of speech. One view is that it was a divine gift. Another view assume that, as the human speech organs developed, recognizable words gradually develop from the basic sound emitted by prehistoric people, and speech and language evolved. What is important, is that speech gave people the ability to think and plan, to hunt and defend themselves more effectively, to invent ways of preserving food and keeping warm in winter, and learn to cultivate the land”. It was during this era that people also began to express their creativity in the form of art. The cave painting that has been discovered in different parts of the world.

Delia (2008:10-11) also states the development of speech and language thus had consequences for both individuals and society. While the ability to use language did not cause great changes, it, however, made possible the transition from hunting to an agricultural way of life.

Another point that Delia (2008:15) makes is that some of the earliest agricultural communities settle along the fertile bank of the Tigris and Euphrates rivers, the shores of the Mediterranean and the banks of the Nile River. As these agricultural areas grew and developed over the centuries, people needed to find ways to record such matters as boundaries and land ownership. Their towns grew in size and commercial activities and trading increase, the also needed to keep record of buying and selling, and other transactions. It was needs such as these that prompted the invention of writing in about 3500 BC.

**The age of writing**

Schramm & Wilbur (2007:14) explains that “the oldest-known forms of writing were primarily logographic in nature, based on pictographic and ideographic elements. Most writing systems can
be broadly divided into three categories: logographic, syllabic and alphabetic (or segmental); however, all three may be found in any given writing system in varying proportions, often making it difficult to categories a system uniquely”.

Schramm & Wilbur (2007:14) affirmed that “the invention of the first writing systems is roughly contemporary with the beginning of the Bronza Age in the late Neolithic of the late 4th millennium BC. The first writing system is generally believed to have been invented in pre-historic Sumer and developed by the late 3rd millennium into cuneiform”. This is corroborated by Delia (2008:20-21), which confirms that Egyptian hieroglyphs and Indus valley script also developed during this era. However, a few scholars have questioned the Indus valley script’ status as a writing system.

Schramm & Wilbur (2007:15-16) maintain that “the original Sumerian writing system was derived from a system of clay tokens used to represent commodities. By the end of the 4th millennium BC, this had evolved into a method of keeping accounts, using a round-shaped stylus impressed into soft clay at different angles for recording numbers. This was gradually augmented with pictographic writing using a sharp stylus to indicate what was being counted”.

Schramm & Wilbur (2007:16-17) further argue that “round-stylus and sharp-stylus writing was gradually replaced about 2700-2000 BC by writing using a wedge-shaped stylus (hence the term cuneiform), at first only for logograms, but developed to include phonetic elements by the 2800 BC. About 2600 BC cuneiform began to represent syllables of spoken Sumerian language”.

They point out that finally cuneiform, writing became a general purpose writing system for logograms, syllables and numbers. By the 26th century BC, this script had been adapted to another Mesopotamian language, Akkadian, and from there to others such as Hurrian, and Hittite. Scripts similar in appearance to this writing system include those for Ugaritic and Old Persian.
According to Schramm & Wilbur (2007:17-19) the Chinese script may have originated independently of the Middle Eastern scripts, around the 16th century BC (early Shang Dynasty), out of a late Neolithic Chinese system of proto-writing dating back to c. 6000 BC. The pre-Columbian writing systems of the Americas (including among others Olmec and Mayan) are also generally believed to have had independent origins, although some experts have noticed similarities between Olmec writing and Shang writing that seem to suggest that Mesoamerican writing was imported from China.

The first pure alphabets (properly, abjads, mapping single symbols to single phonemes, but not necessarily each phoneme to a symbol) emerged around 2000 BC in Ancient Egypt, but by then alphabetic principles had already been incorporated into Egyptian hieroglyphs for a millennium. Schramm & Wilbur (2007:20-25) point out that by 2700 BC Egyptian writing had a set of some 22 hieroglyphs to represent syllables that begins with a single consonant of their language, plus a vowel (or no vowel) to be supplied by the native speaker. These glyphs were used as pronunciation guides for logograms, to write grammatical inflections, and, later, to transcribe loan words and foreign names. However, although seemingly alphabetic in nature, the original Egyptian unilateral was not a system and was never used by them to encode Egyptian speech.

They further state that in the Middle Bronze Age an apparently alphabetic system is thought by some to have been developed in central Egypt around 1700 BC for or by Semitic workers, but we cannot read these early writings and their exact nature remain open to interpretation. Over the next five centuries this Semitic alphabet (really a syllabify like Phoenician writing) seems to have spread north. All subsequent alphabets around the world with the sole exception of Korean Hangul have either descended from it or have been inspired by one of its descendants.

**The age of print**

According to DeFleur *et al.* (2005:16-22) printing process is traditionally attributed to the invention of movable metal type by Johannes Gutenberg of Mainz, in Germany, in 1450. Prior
to this time, manuscripts and books were produced by craftsmen and monks who Gutenberg’s invention revolutionised book production. The printing press spread rapidly throughout the world and by the beginning of the 16th century, thousands of books were being produced. The importance of Gutenberg’s invention is that it permitted the storage of large amount of information. Printing is said to have marked the start of the Modern world because it changed the way information was conveyed and, for the first time literacy became within reach of the masses.

They say the new then, and now, spoken languages remain the model of compunction. Writing, and then printing, supplement oral communication, but never replace it. As techniques were developed for more rapid printing and improved road and postal systems made distribution easier, news sheets an early form of newspaper began to flourish and their circulation increase rapidly. While the early news sheets of the 17th and 18th centuries were designed to appeal to the growing numbers of literate artisans merchants in the rapidly developing urban-industrial sites of Europe and America. The social significance (i.e. how society influenced or changed) of printing is that with the spread of books, information became available to a greater number of people. For the first time in history, they were able to share knowledge that had previously been denied to them.

DeFleur et al. (2005:24-28) further state that as more and more people learned to read and write, their thinking was freed from the restriction of church and government. New political and religious ideas began to circulate in society, and throughout Europe and America, revolutionary movement emerged, making use of print to disseminate their idea to increasingly receptive publics. Particularly with the spread of newspapers, public opinion became something that political leaders had to take into account. Although it came after books production, the great success and wide distribution of the newspaper made it the first true mass communication medium.
THE AGE OF ELECTRONIC MASS MEDIA

According to Defleur et al. (2005:7-9) scientific discoveries and technological invention during 19th century (such as electricity and the telegraph) laid the foundation that would eventually lead to mass electronic media. Toward the end of 19th century, people were able to send telegrams and cables and talk to each other on the telephone. It is important to note that the advent of electricity created the ire world and, for the first time in history, it became possible to separate communication and transportation. Until then, the medium that carried the information had to be physically transported from one place to another.

Defleur et al. (2005:9-10) add that books and newspapers had to move from place to place in much the same way as clay tables in ancient times. With the invention of the telegraph and the telephone, information could be transmitted rather than transported. Communication over vast distance was no longer dependent on the available means of transportation. The effects of this revolution are still in evidence today. E-mail, for example can transmit a letter speedily without the need for mail-delivery.

Crowley et al. (2008:33) explain that it is also important to note that, while the telegraphs facilitate the sending of information that could be collected at a distance for later use, the telephone was an immediately interactive medium In other words, there was no longer a time delay between the transmission of information and its reception by the person to whom it was addressed.

Crowley et al. (2008:36-45) list the ages of electronic Mass Media as follows:

- Invention of the Radio: although the construction of the radio is based o Michael Faraday’s laws of electromagnetic induction, which Faraday proposed in 1831, it was William Henry Ward, who implemented the principles and successfully got himself a patent for radio development in 1872.
- Invention of the Telephone: although there were several disputes surrounding the claim to the invention of the telephone. Although the Italian scientist Antonio Meucci, was acknowledged by US Congress on 11th June 2002 for his contributions to the invention of the telephone, it is Alexander Graham Bell who patented the telephone as apparatus for transmitting vocal or other sounds telegraphically.

- Invention of the Television: the answer is highly debated, although it is known that a Scottish inventor, John Logie Baird, was the first one to publicly demonstrate television on 26 January 1926, in his laboratory at Soho district of London. However it was an American engineer Philo Farnsworth who researched the television picture transmission and developed the dissector tube, which is the basic element of all current electronic televisions. In 1927, Philo Farnsworth became the first inventor to transmit a television image.

- Invention of the first Computer: the first computer was called ENIAC, which is an abbreviation for Electronic Numerical Integrator and Computer and was completely developed in 1945 at the Iowa State University.

- Invention of the Internet: the design of the Internet was formulated in 1973 and published in 1974. It took as many as ten years to bring the idea into reality and the Internet was set up in 1983. Not many people know that the concept of Internet was developed by an American computer scientist Vinton Cerf, as part of a project sponsored by the United States Department of Defence Advanced Research Projects Agency.

- E-mail: (electronic mail) IDC, a subsidiary of the International Data Group (IDG), the premier global provider of market intelligence for the information technology and telecommunications industries, predicted that the total number of e-mail messages sent daily will have exceeded 60 billion worldwide by 2006. They expect that e-mail volume will continue to grow as person to person e-mails are joined by rapidly growing number of spam, e-mail alerts and notifications. International Data Corporation IDC predicted that more than half of all message sent in 2006 will have been person to person e-mails.

- According to Barry et al. report (2011) 90 percent of all people on the internet use it for e-mail. E-mail has become an essential part of communication within and between organisations and has also changed the nature of relationships between individuals. For many people, message sent via e-mail have replaced letters, faxes and telephone calls in
both their business and personal lives. E-mail is generally fast, cheap and reliable. Because physical distance between communications is irrelevant, relationships are created through connection rather than through physical proximity. It is however, important to remember that electronic mail is not necessarily private and that people other than the intended receiver of your message can access them.

- The World Wide Web: a part of the internet in which information is presented in a multimedia format is the World Wide Web (WWW).

- Ball-Rokeach (2006:44) states that, because of the cost and slowness of using traditional media, computers networked via the internet provided the best means of publishing and delivering this material since then, the WWW has become the most popular internet service, adds colors, mail. The WWW combines words, graphic, video and sound, adds colors, and includes advertising, downloadable text and programmes. It is possible to search for information on almost any topic using a key word or phrase. Information in the WWW is presented on ‘web page’, rather like the pages in a book. A collection of pages belong to the same organization or individual is called a ‘web site’.

**Definitions of Communication**

According to Mersham & Skinner (2001:8-9) communication is the process of transferring information from one source to another. It is commonly defined as the imparting or interchange of thoughts, opinions, or information by speech, writing, or signs. Communication can be perceived as a two-way process in which there is an exchange and progression of thoughts, feelings or ideas towards a mutually accepted goal or direction.

Mersham & Skinner (2001:8-9) define communication as a process whereby information is encoded and imparted by a sender to a receiver via a channel or medium. The receiver decodes the message and gives the sender a feedback. Communication is thus a process by which we assign and convey meaning in an attempt to create shared understanding.

**The Communication Processes**

Dominick (2006:11) points out that communication process involve; a source, process of encoding, a massage, a channel, a decoding process, a receiver, the potential for feedback as well
as the noise. The source initiates the process by having a thought or an idea that he or she wishes to transmit to some entity.

Encoding refers to the activities that a source goes through to translate thoughts and ideas into a form that may be perceived by the senses.

The message is the actual physical product that the source encodes; when we talk our speech is message. Messages can be directed at one specific individual or at millions, for example the internet website has a lot of information that can be read by millions.

Channels are ways the message travels to the receiver, sound waves carry spoken words, light waves carry visual messages. Receiving the message or decoding process is the opposite of the encoding process. It consist activities that translate or interpret physical message into a form that has eventual meaning for a receiver.

The receiver is the target of the message-its ultimate goal. The receiver can be a single person, a group, an institution, or even large anonymous collection of people.

Feedback refers to those responses of the receiver that shape and alter subsequent messages of the source; Feedback is useful to the source because it allows the source to answer questions. Communication scholars define noise as anything that interferes with the delivery of the message.

THE EFFECT OF COMMUNICATION

According to Mersham & Skinner (2001:13) communication effects are the changes in recipient behavior that occur as a result of the transmission of a message. Hence when he speaks of effective communication he means communication that result in those changes in recipient behavior that were intended by the source.

THREE MAIN TYPES OF COMMUNICATION EFFECTS:

- The change in the recipient’s knowledge
- The changes in the recipient’s attitudes. These are defined as the relatively constant organization of an individual’s beliefs about an object or subject that predisposes his or her action. That is an attitude which often predicts the action that an individual may take.

- The changes in the recipient’s overt behavior, such as voting, purchasing of product, or coming to work on time.

Mersham & Skinner (2001:13) also state that these three changes usually, but not always, occur in sequences; that is a change in knowledge usually precedes a change in attitude, which precedes a change in overt behavior. The majority of studies in organizational communication argue that the purpose of organizational communication is to bring about certain intended effects in recipients. When the intention of the source (usually top management) is achieved, the communication is thought of as effective. However, new approaches to management and organizational communication firstly recognize that the important of all stakeholders in the communication process.

**THE ROLE OF COMMUNICATION**

According to Miller & Steinberg (2005:19) communication, as a process, performs a number of functions in communities and society at large. Apparently, humans communicate with at least some purpose in mind, and the most important purpose is to satisfy a personal or social need. Also notes that sometimes people need the active co-operation of others to achieve the purpose. For instance, asking a patient to ‘breathe deeply’ enables a doctor to examine for a lung infection. In the first instance, as proposed by Steinberg, people communicate with others in order to satisfy physical and psychological needs. Thus, people need to communicate in order to survive and satisfy psychological needs.

Miller & Steinberg (2005:16) also state that without at least some contact with other people, most people would suffer serious consequences, including hallucinations and a loss of our sense of time and space.
Miller & Steinberg (2005:20) note that communication develops and maintains relationships with other people. Relationships in this context refer to any connection, involvement or association between two people, regardless of its source. They state that people need the love and friendship of friends and family, and the co-operation of those in their work and social groups to feel secure about them. People cannot function in a society without information. Thus, information is one driving force behind communicating. People obtain and share information for some reasons. People need information because they need to know and understand what is going on around them and in other parts of the world.

According to Steinberg (2007:20) another purpose of communication is for decision making. Whatever the context, people communicate to obtain and share information that enables them to make informed decisions. In certain times people will need specialised information to arrive at a decision. Other reasons for communicating with others include persuasion of others and gaining insight into ourselves.

**MASS COMMUNICATION**

According to Dominick (2006:11) Mass communication refers to the process by which a complex organization with an aid of one or more machines produces and transmits public massages that are directed at large, heterogeneous, and scattered audiences. Dominick (2006:12) emphasizes that until the advent of the internet and the web, the source in the traditional mass communication situation was typically a group of individuals who acted in predetermined roles in an organizational setting, in other words, mass communication was the end product of more than one person’s efforts. The advent of internet based mass communication changes this situation.

Dominick (2006:11) further states “thanks to World Wide Web, one person can become a mass communicator. For both traditional and internet based mass communication, the source usually has little detailed information about its particular audience, for example, the author of the website has little detailed about the individual people who visit the site”.
**Mass Media**

According to Dominick (2006:14) a medium is a channel through which the message travels from one source to the receiver. (“Medium” is singular “media” is plural). Mass Media are the channels used for mass communication. The definition of the mass medium will include not only mechanical devices that transmit and sometimes store the message (TV cameras, radio, printing press etc) but also institutions that use these machines to transmit messages.

**The Internet**

According to Mersham & Skinner (2001:150) Internet is an international network of networks. It allows millions of computers and other electronic devices of all kinds (cell phones, portable computers, computer networks, pagers and video cameras), via telephone lines and satellites to communicate with one another around the world in an economical and easy to use way.

Dominick (2006:299) defines the Internet as the global network of networks. This means a group of two or more networks is electronically connected and able to communicate with one another. Together, the networks act as a single network.

Mersham & Skinner (2001:54) states the figure of 1 820 000 internet users in South Africa clearly shows that South Africa as the most digitally connected country in Africa. More and more teenagers are going online in South Africa. Younger teenagers tend to access the internet more at home while almost half of those between 18-20 age group go online at places of work or at home. By December 31, 2008, 1.574 billion people were using the Internet according to Internet World Statistics.

According to Fiske (2009:22) the term communication is used in electronic to denote the connection of two points by means electrical, telephonic, and telegraphic or radio, electric apparatus and also state that Communication is common for sharing things between two or among several persons.
Debeer (2008:24) explain that at first Internet was mainly available to and used by academics, researchers and large corporations. In recent years this has changed to a large extent, more and more people own and or have access to personal computers and modems become more powerful and are available at low prices. One of the most exciting developments in telecommunications during the last of the 1990s was undoubtedly the emergence of the Internet. By 1993 it was estimated that total connectivity was growing by 8% per month. Today, it is estimated that Internet has over 20 million users.

McQuail (2007:46) claims that what is new about the Internet may be a combination of interactivity with those features which were innovative for mass communication such as unlimited range of content, the scope of audience reach, and global nature of communication.

Mersham & Skinner (2001:121) explain that Internet has grown rapidly on the continent over the last few years. At the end of 1996 only 11 countries had internet access, but by March 2000, 51 countries had achieved permanent connectivity, with only Somalia and Liberia remaining without local internet service.

Dominick (2006:19) argues that the emergence of the Internet has created a new channel for machine-assisted and mass communication. The World Wide Web brings the internet into the realm of mass communication and reverses the traditional patterns of one-to many communication websites offer everybody the chance to become Mass Communicator. This is possible because the Internet brings down the cost of mass communication to a level at which anybody can afford it. A single individual can create and maintain a website for a relatively small sum of money. The affordability of this channel can make everybody an electronic publisher with an access to a potential audience of millions, thus creating a whole new type of Mass communication. Dominick (2006:27) also states that Internet is run by government agencies some by Universities, some by libraries and schools systems and so on.
According to Dominick (2006:38), “the internet audience is changing rapidly. When the Internet first started mostly young, affluent male were surfing the Web. As of 2003, the audience was split nearly 50-50 between male and female, and the percentage of adults above 50 had grown by 50%. The Internet audience is becoming like general population. More than 150 million regularly use the Internet”.

**Uses of Internet**

According to John & Sons (2012:10-21) the “Internet is unlike all the other communications media anyone has ever encountered. People of all ages, colours, creeds, and countries freely share ideas, stories, data, opinions, and products. Increasingly, news gets out on the Internet before it’s available on other media, and the cyber-deprived are losing ground in keeping current on the world’s happenings”. The following are some of the ways that the Internet is being used:

(Here are some of the ways the Internet is being used:)

- **Finding people**: if one’s lost track of a childhood sweetheart, now there is a chance to find him or her anywhere in the country. One can use one of the directory services to search the phone books of the entire United States.

- **Finding businesses, products and services**: new yellow page directory services enable everyone to search the title name of a company that there are looking for. One can indicate the area code or zip code to help specify the location. People are shopping for that hard to find, special gift item.

- **Research**: law firms are realizing that a great deal of information they formerly paid $600 an hour to find from commercial services can be found for almost nothing when they go directly to the Internet. Real estate appraisers use demographic data available on the Internet, including unemployment statistics, to help assess property values. Genetics researchers and other scientists download up-to-date research results from around the world. Businesses and potential businesses research their competition over the Internet.

- **Education**: schoolteachers coordinate projects with classrooms all over the globe. College students and their families exchange e-mail to facilitate letter writing and keep
down the cost of phone calls. Students do research from their home computers. The latest encyclopedias are online.

- **Travel:** cities, towns, states, and countries are using the Web to put up (post) tourist and event information. Travellers find weather information, maps, transportation schedules and tickets, and museum hours online.

- **Marketing and sales:** software companies are selling software and providing updates via the Internet. (The folks making money from the manufacture of floppy disks are looking for new products. Aside from the large pile of AOL disks are now use as coasters, most software distribution is migrating to the Internet.) Companies are selling products over the Internet. Online bookstores and music stores enable people to browse online, choose titles, and pay for stuff over the Internet.

- **Job searches:** not just for students, the Internet is an incredible tool for finding a job. It’s especially good for students because it provides a powerful, economical way to conduct a real job search. The one can publish their resume online for prospective employers. Others can check out the Monster board, an impressive compilation of job-related information that enables them to search by discipline (the area of study all searches need the other kind) or geography or a host of other criteria.

- **Love:** people are finding romance on the Internet. Singles ads and matchmaking sites vie for users. Contrary to Internet lore, the Internet community is no longer just a bunch of socially challenged male nerds under 25.

- **Healing:** patients and doctors keep up-to-date with the latest medical findings, share treatment experience, and give one another support around medical problems. Some practitioners exchange e-mail directly with their patients.

- **Investing:** People do financial research, buy stock, and invest money. Some companies are online and trade their own shares. Investors are finding new ventures, and new ventures are finding capital.

- **Organizing events:** conference and trade show organizers are finding that the best way to disseminate information, call for papers, and do registration is to do it on the Web. Information can be updated regularly, and paper and shipping costs are dramatically
reduced. Registering online saves the cost of on-site registration staff and the hassle of on-site registration lines.

- **Nonprofits**: churches, synagogues, and other community organizations put up pages telling about themselves and inviting new people. The on-line church newsletter always comes before Sunday.

**CONCLUSION**

This chapter has been largely concerned with the development of electronic communication and the uses of Internet. It began by exploring the way in which prehistoric people communicated and how communication developed into its modern form. It examined the history of human communication: the age of speech and language, the age of writing, the age of print and the age of electronic mass media. The next chapter explores online shopping.
Chapter 3

ONLINE SHOPPING FOR RURAL COMMUNITIES

INTRODUCTION

The previous chapter focused on the development of electronic communication. This chapter is going to introduce online shopping. According to Komito (2005:78) “online shopping is the process of buying goods and services from merchants who sell on the Internet”. Since the emergence of the World Wide Web, merchants have sought to sell their products to people who surf the Internet. Shoppers can visit web stores from the comfort of their homes and shop as they sit in front of the computer. Consumers buy a variety of items from online stores.

ONLINE SHOPPING

According to Chaudhury & Kuilboer (2006:67) “online shopping, commonly known as e-commerce or ecommerce, or e-business consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks”. The amount of trade conducted electronically has grown extraordinarily with widespread Internet usage.

According to Sathye (2007:88) a large percentage of online shopping is conducted entirely electronically for virtual items such as access, to premium content on a website, but most online shopping involves the transportation of physical items in some way. Online retailers are sometimes known as e-tailers and online retail is sometimes known as e-tail.

Komito (2005:76) defines online shopping as business to business that can be open to all interested parties (e.g. commodity exchange) or limited to specific, pre-qualified participants. Online shopping that is conducted between businesses and consumers, on the other hand, is referred to as business to consumer. This is the type of online shopping conducted by companies such as Amazon.com.
Cyberspace Shopping

Komito (2005:78) further states “online shopping occurs when the buyer uses the Internet to connect directly to the seller’s computer”. There is no intermediary service. The sale and purchase transaction is completed electronically and interactively in real-time such as Amazon.com. If an intermediary is present, then the sale and purchase transaction is called electronic commerce such as e-Bay.com. Online shopping is generally considered to be the sales aspect of e-business. It also consists of the exchange of data to facilitate the financing and payment aspects of the business transactions.

INTERNET DEVELOPMENT PROCESS

According to Darley (2006:44) the Internet Communication Technology is more generally new tools for information acquisition, processing, analysis, and transmission, but information is the underlying resource of value to entrepreneurs. Darley (2006:44) further states that Internet Communication Technology may also benefit entrepreneurs by improving information available to their transaction partners, whether customers, financiers, or others. Darley (2006:44) also states that besides reducing information search costs, the Internet or mobile telephony can
improve the efficiency of the working of product and factor markets directly, e.g., by reducing
time for payments clearance, credit processing. Far and away the most important use of the
Internet to date in developing countries has been for e-mail services.

According to Scupola (2008:21) about 82 per cent of Internet traffic consists of e-mail, while in
the United States the Web accounts for 70 per cent and e-mail only 5 per cent. This is a result of
the rather high access costs in many developing countries compared, notably, with the United
States. As a mode of information management, the Internet competes with, but also
complements, other modes.

Scupola (2008:21) also states that depending on access costs, it can be cheap to substitute for
telephone and fax services: cheap because of the higher transmission speed of a given
information bundle or, viewed differently, the large quantities of information that can be
transmitted per unit time; imperfect because, unlike telephone at least, it does not readily permit
two-way communication in real time, and it presumes basic literacy or the ability to hire a literate
message transcribe. In any event, it makes use of the telecommunications infrastructure, whose
inadequacy in many parts of the developing world (notably in rural areas, where most of the
developing world’s population, and a disproportionate share of its poor people, still lives)
precludes telephone, fax, or Internet use.

According to Barry et al. (2011:25-30) wireless (or mobile) telephony has emerged as a potential
solution to the rural telephone deficit and as a possible bridging technology from an unwired
world to an Internet accessible one. While state of the art mobile telephones already offer the
potential of direct Internet access, even without this capability in many low income countries
mobile phones are diffusing Globalising Technologies and economic development in developing
rapidly, in some cases even in rural areas. As an instrument for acquiring timely information by
otherwise isolated rural communities, there are certainly parallels between the current uses of
wireless telephones and the potential uses of the Internet in developing countries. One
difference is that the latter potentially makes available with a single call (or dial-up connection) a much larger set of databases and information sources. Barry et al. (2011:25-30) further explain that moreover, the Internet makes possible the automatic packaging and distribution of information to targeted user groups on a repeated basis, and even the distribution of fully customized information packets for each individual user.

**INTERNET AND THE DIGITAL ECONOMY**

Bhatnagar (2009:66) explains that the past few years have seen an explosion of attention to the role played by information and communications technology (ICT) in shaping the global economic landscape, on the supply side; contributing factors include the development and introduction of new and improved products through firm level investments and services. Duncombe & Heeks (2006:56) point out that the stimulating demand are the rapidly declining costs and prices for ICT equipment and telecommunications services and the liberalization of the trade and regulatory framework. While caution must be exercised concerning the existence and significance of a new economy, the spread and pervasiveness innovation, the ready availability of venture capital funds for investments in ICT, the development and rapid growth of new products or services segments, and the general shift towards of ICT may indeed be boosting sustainable growth rates.

**GLOBALISING TECHNOLOGIES AND ECONOMIC DEVELOPMENT**

Bocij et al.(2007:39-45) describe the Internet or the network of networks as becoming a core feature of the contribution of Information Communication Technology to the economy, affecting the way in which people communicate with each other, acquire information, learn, do business, and interact culturally. The World Wide Web, a key component of the Internet, has provided the graphical interface and hypertext linking protocols to enable people to share text, sound, and images.

Bocij et al.(2007:39-45) also state that in a historical perspective, the Internet has diffused at a much faster rate than earlier generations of communications technology from 1990 to early 2000,
the estimated number of users grew from around one million to 300 million. One particularly promising application of the Internet is in the area of e-commerce, i.e. trade that actually takes place over the Internet, usually through a buyer visiting the seller’s website and making a transaction there, or through an online auction.

**Benefits of online shopping**

According to Mann (2010:29) “the greatest economic value currently associated with Internet based commerce involves business-to-business transactions shifting many of the internal functions of business operations, such as order placement, inventory control, technical specification procurement, and product distribution, from paper based to electronic transactions can dramatically reduce business costs and increase productivity”. Mann (2010:29) further states “many of the largest companies have reported significant savings and are increasingly demanding that suppliers and vendors switch to electronic systems”.

**Internet purchases by rural residents: implications for community development**

Dube et al. (2009:44) maintain that rural areas continue to lag behind their metropolitan counterparts on many indices including population growth, incomes and employment changes. Williamson, (2006:22) explains that one difficulty faced by small rural communities has been the inability of Main Street stores to compete with large discount centers or regional shopping outlets. More recently, the impact of growing Internet sales and possible effects on small rural businesses, especially in communities without broadband access, are of concern. Dube et al. (2009:44) state the fact that rural areas lag behind their metropolitan counterparts in Internet access has been well documented. Widespread attention has been paid to the effects on rural communities from a lack of access including the impact on social capital and volunteerism. Dube et al. (2009:44) also state that one positive note is that although rural areas lag behind in access, rural residents are catching up and using the Internet more extensively.

According to Mohammed (2009:32) the Internet affects rural areas in two ways; first, it offers low cost marketing opportunities for rural businesses so that they can reach a much broader
clientele. Small service businesses, for example, that formerly required close proximity to customers in large metropolitan areas could now locate in remote rural areas with lower operating costs and market to customers over the Internet. Niche markets for specialty products grown or made in remote rural areas are also opened up with the Internet. Mohammed (2009:32) also states “the Second effect in rural area, the Internet allows rural residents, especially those in remote areas, to make purchases more conveniently and often at lower prices”. Thus, small retail stores with limited offerings experience substantial competition from distant retailers offering a wide selection of merchandise at lower prices and a low delivery cost. The advent of discount stores in the past brought major competition mainly for inexpensive merchandise but retailers in small towns still possessed a relative monopoly power for higher quality merchandise. Internet sales now reduce or eliminate that monopoly power for a much broader range of merchandise.

According to Gupta (2008:45) many rural communities still do not understand the benefits of online shopping. However, Nicholson & Snyder (2009:328) indicate that many groups of people from urban centers have begun using the Internet to buy goods. Al-Sukhar (2005:27) argues that rural consumer does not easily convert to online shopping, and the impact of the Internet might be less than initially expected. Al-Sukhar (2005:27) further states that some resistance is expected to use credit cards online or otherwise releasing private information in a distant relationship. For example, one might hypothesize that elderly and other rural residents with a more conservative attitude might resist buying over the Internet and thus might provide a strong market for rural businesses. Al-Sukhar (2005:27) also states that this resistance could benefit small stores in rural areas that rely on customer familiarity and personal attention as marketing tools.

**ONLINE SHOPPING AND RURAL COMMUNITY ECONOMIC DEVELOPMENT**

According to Onojaefe & Bytheway (2005:60) “online shopping presents significant challenges to Rural Community Economic Development (RCED). Rural community economic development has for the most part been low technology, focusing on those sectors of the economy which traditionally have not been technology or knowledge intensive and with
relatively low technical skill requirements such as real estate development or rehabilitation, food retailing, craft manufacture and sale, tourism and particularly eco-tourism and so on. Most regions and communities with a strong interest in RCED have been low income, with low skill levels, and little technology or training infra-structure. They have been ill-equipped to take leading edge advantage of the development of technology opportunities and have been implementers not innovators in technology use”.

Poon & Swatman (2010:23 point out that in many cases the Internet has come to be a central element in certain areas of social development and particularly in social advocacy, with those involved in these activities having developed innovative Internet based approaches and even applications.

**LACK OF LITERACY IN RURAL AREA/ COMMUNITIES**

According to Rahman & Westley (2010:50) “rural people in South Africa are generally not highly educated and there is an obvious gap in their understanding of business models and information technology and its potential benefits to the community that people with access to Information Communication Technology services increase their ability to generate income and are enabled to help empower other rural people”.

Marcelle (2009:40) emphasizes that there is a crucial need for programmes that target people in rural communities for improved information communication transaction access and training and the use of Internet applications. The people of rural communities are relatively new to business concepts and have little experience of how to identify and develop markets. They have no information on average produce and goods prices and do not know the value of their crops and goods or what crops and goods are in demand. Information on who wants to buy what and who has what to sell is scarce. Generally the produce and goods are sold at low prices and the economic activity in the area does not result in significant poverty eradication.
Rural communities need an intelligent model of capacity building

According to Keane (2010:13) there is a need to develop smart communities to adopt new models of communication. Community knowledge networks can be easily created by citizens using existing Internet infrastructure at no cost to gather and share new knowledge for creating new opportunities on an on-going basis. The need exists to engage adult leaders as decision makers and youth as technology leaders in together understanding their immediate options to counter the negative impacts of a changing economy. Rural communities nationally are losing 3-5 percent of their population annually and the migration of youth to urban areas is decimating their future sustainability.

Ashley & Maxwell (2010:18) feel that there is a dire need to gather and share the best replicable models for sustainable Community Technology in order to support rural communities. Effective Community Networks (CNs) are necessary to generate social value, peer mentoring, and to support online learning. This process augurs well for spinoffs such as improved economy and poverty eradication.

Creating Intelligent Rural Communities

Martin & Matlay (2008:3-19) state “Internet Infrastructure alone has proven to be inadequate to sustain rural communities”. Effective use of infrastructure is needed to create a meaningful info-structure built on concrete content and effective collaborative practices. Social engineering strategies engaging citizens in on-going self-directed online learning are needed to enable rural citizens to determine their own destinies and together build a sustainable future.

According to Marcelle (2009:4) “rural leaders need to understand how to bridge the gaps in their understanding what’s achievable regarding innovative community technology centers and community networks. Community leaders must first become aware of the successful innovations of others, particularly those which can be replicated locally at minimal cost without the need for outside funding. Fast track essential Ecommerce skills development can generate measurable benefits to motivate citizens about the value of new knowledge”.
CONCLUSION

This chapter addressed the growth of online shopping. Pertinent issues such as globalization of the economy and the impact of online shopping on local business were explored. Furthermore, online shopping, commonly known as e-commerce or ecommerce, or e-business, which consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks were discussed. The amount of trade conducted electronically has grown extraordinarily with widespread Internet usage. The next chapter discusses online banking.
Chapter 4

ONLINE BANKING

INTRODUCTION
The previous chapter addressed issues relating to online shopping. This chapter extends the same concept to investigate online banking. According to Boyes & Stone (2009: 28-29) “current online banking operates in a highly competitive and rapidly changing environment. In the changing economic scenario, a professional approach to business development is essential and the survival of an online banking institution depends on its ability to take up challenges coming up in the environment”.

According to Answers.com (2011) “online banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels”. Online banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. Customers access online banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM), kiosk, or Touch Tone telephone. While the risks and controls are similar for the various e-banking access channels.

ONLINE BANKING IN RURAL AREA ENTERED AND DEVELOPMENT
According to Black et al. (2010:20-30) “online banking has never been more important to any society than it is today”. They agree that online banking has been viewed as a revolution progress in the banking industry. For instance, 20 years ago, 70% of all consumer financial transactions went through a bank office with brick and mortar structures. Today, less than 30% of the same consumer financial transactions run through a branch office or the lobby of a main bank office. As a result, the banks, as an industry, are formulating strategic plans to fight back in winning
their customers. The industry believes that by adopting new technology, the banks will be able to improve customer service level and tie their customers closer to the bank. Meanwhile, the banking industry has been also looking for new methods to expand its customer base and to counteract the aggressive marketing effort of those non-traditional banking entities. Banks have realized that more and more people are beginning to use electronic banking than the traditional style of banking.

Black et al. (2010:20-30) further state that many banks, based on their existing 24-hour telephone banking systems, have developed and implemented several important e-banking applications so that their customers now are able to pay bills, transfer money among accounts, check account history, download statement information, and computerize their check books online all at easy and around the clock facing extremely intensive competition from non-banking sector, the banking industry has adopted a more aggressive approach to fight competitors for the financial services market share. For example, a number of banks, especially some community banks, decided to provide Internet access to their customers and becoming the dominant provider of local Internet connection services for the local community, thus hoping to lock in customers to their financial institution. Some larger banks are stepping ahead to install advanced software to process all consumer loan applications online, a new paperless e-loan process.

Black et al. (2010:20-30) further state that customers will receive hard copies of all documents signed for their personal records and interestingly, the signatures will be created from images collected by special electronic signatures (e-signature), which has been available and legal since 2000.

Boyes & Stone (2009:9-15) explain that as an integral part of the e-business, the online banking has been growing at a rapid pace. It is believed that the online banking will help banks to cut costs, increase revenue, and become more convenient for customers. Due to different
motivational factors, however, banks have laced different investments in their online banking
efforts.

Boyes & Stone (2009:9-15) report that only about 20% of national banks offered online banking
options in 1999. While larger and national banks are leading in the e-banking forefront, the same
cannot be said about smaller and community banks - only about 7% of smaller community banks
were reported to explore the e-banking operations in the same year. This has been attributed to
the fact that those smaller community banks were in general lack in both financial and
technological resources in their e-banking efforts. While more variety of e-banking services has
been projected, over half of the growth in online banking services was predicted from smaller
community banks.

Boyes & Stone (2009:16-20) state that currently, the online banking operations focus mainly on
business lending and credit card businesses, other than rely on deposits for funding. For smaller
community banks, this is consistent with recent reports that smaller banks are concerned about
traditional sources of funding and view the addition of online banking as a way to offer products
that reduce their dependence on core deposits.

Boyes & Stone (2009:16-20) further state that online banking options also generate a higher
proportion of their income from non-traditional activities over 50% more of their profits from
non-interest income comparing to banks without online banking operations. As a result, these
banks have adopted a business strategy of using the online banking to target business customers
and more wealthy consumers for not only in loans but other fee income services.

According to Boyes & Stone (2009:20-28) the application of e-banking has also been proven as
an effective way to reduce the costs of operation for the financial institutions. For instance,
online banking services will allow banks to reduce expenditures on physical structures. Larger
banks that maintain expensive branch networks tend to have the greatest incentive to adopt
online banking services. In comparison, smaller banks have higher start-up costs and tend to
have a high initial technological cost in developing e-banking services. In fact, most small banks were motivated to develop online banking services for potential future cost savings and gaining a competitive edge in the competition.

Boyes & Stone (2009:20-28) further state that among 85% banks nationwide offering online banking, the biggest growth has been coming from small and local community banks. Another recent trend revealed is that about 93% of consumer deposits were served by the banks with e-banking services. That is, about 9 out of 10 banking industry customers today have access to online banking services. Under the pressure of competition, many banks are not only increasing their customer’s online access but also expanding their e-banking services.

According to Marenzi at al. (2009:30) important benefit from online banking that is a more effective information collection and management. The Internet is an extremely efficient channel for banks to collect the information from customers and manage information flow to meet a wide-range financial need of individuals and businesses. In fact, offering online banking services is not only allow small banks to enter markets and reach customers that were previously off limits to them, but also to provide a considerable economies of scale in record storage and data processing which were only available to large banks (which have the necessary equipment).

Marenzi et al. (2009:30-33) report that currently it is believed in the banking industry that a combination of a low percentage of customers using online banking services on a consistent basis and a relatively low start-up cost in developing online banking services will make the impact of e-banking (positive or negative) quite limited on the bottom line of most financial institutions. The exception to this statement, of course, can be heard among some larger banks that have a large share of current e-banking market.

Marenzi et al. (2009:30-33) explain that many small banks that offer online banking services were unprofitable in the book, as those banks had to absorb all related costs of developing online banking services during the first few years on their annual balance sheets. On another hand, e-
banking services could be highly demanded and desirable to accommodate the sudden, rapid growth that has occurred in other information-intensive industries such as travel and securities brokerage.

**MOBILE BANKING**

According to Salzaman *et al.* (2009:20) “the advent of the Internet has revolutionized the way the financial services industry conducts business, empowering organizations with new business models and new ways to offer 24 hour accessibility to their customers”. The ability to offer financial transactions online has also created new players in the financial services industry, such as online banks, online brokers and wealth managers who offer personalized services, although such players still account for a tiny percentage of the industry.

**MOBILE TRANSACTIONS**

According to Taylor *et al.* (2010:34) “mobile technology is just another, although highly innovative, access channel; an alternative is that mobile telecommunications networks are becoming the front office for financial services leaving the existing banks as providers of back office functions”.

Taylor *et al.* (2010:34) further state that there is also another view which seeks to define the competitive advantages of the banking and mobile finance business models and then explore the ways in which these could give rise to new market structures within which the existing portfolio of financial services (savings, credits and transactions) can be unbundled. There are a number of mobile transaction initiatives in the developed and developing world. Most are bank-led and largely provide an information and transaction channel which complements existing bank access channels such as branches, telephone banking and online services.

**ADOPTION AND USE OF MOBILE BANKING IN RURAL AREAS**

According to Salzaman *et al.* (2009:33) “mobile banking adoption in rural areas is on the rise and the related technological innovations have dramatically enhanced the capabilities of the mobile phones”. Salzaman *et al.* (2009:33) also state that about two billion people in rural areas
worldwide are using a mobile banking. Fafchamps (2007:18) maintains that as the number of mobile phone increases there has been a pervasive impact on people's lives in rural areas. Salzaman et al. (2009:33) point out that Mobile banking adoption and use has a positive and significant impact on economic growth, and this impact may be twice as large in developing countries as in developed countries. Salzaman et al. (2009:33) further state that in South Africa there has been a sporadic mobile banking subscription by the rural and urban populations. Salzaman et al. (2009:33) also state that the number of mobile banking subscribers in South Africa has risen to 8 million subscribers from 6.5 million subscribers in June 2006, from the country’s two operators against 293,400 fixed lines.

**Bank Focused Model in Rural Areas**

According to Agboola (2006:22) “the bank focused model emerges when a traditional bank uses nontraditional low cost delivery channels to provide banking services to its existing customers”. Examples range from use of automatic teller machines (ATMs) to internet banking or mobile phone banking to provide certain limited banking services to banks customers in rural area. This model is additive in nature and may be seen as a modest extension of conventional branch based banking.

**Bank Led Model in Rural Areas**

Agboola (2006:22) elaborates “the bank-led model in rural areas offers a distinct alternative to conventional branch based banking in that customer conducts financial transactions at a whole range of retail agents (or through mobile phone) instead of at bank branches or through bank employees”. Agboola (2006:22) also states that this model promises the potential client to substantially increase the financial services outreach by using a different delivery channel (retailers or mobile phones), a different trade partner having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank based alternatives. The bank led model may be implemented by either using correspondent arrangements. In this model customer account relationship rests with the bank.
**Non-bank led model in rural areas**

According to Agboola (2006:22) “the non-bank led model is where a bank does not come into the picture (except possibly as a safe keeper of surplus funds) and the non-bank performs all the functions”.

**Competitive Level of Online Banking**

According to Furst *et al.* (2008:22) “some of the new online banking services have gained a growing popularity such as e-payments and statement aggregation”. It is predicted that the service of statement aggregation will become a critical online banking feature in the future. This service is used to drive new business, increase profitable cross selling opportunities, and initiate improved service quality and quickly becoming popular among bank customers. According to Furst *et al.* (2008:22) the monthly online credit application is another key online banking service has grown from none in 1995 to 40,000 applications per month in 2003.

Furst *et al.*(2008:22) further state “online banking has become a serious competitor to traditional banks, especially in large urban areas with the advantages of quick and easy application process, less and less technical glitches, more funding options for banking customers, and low minimum opening deposit requirement, traditional banks nowadays have to compete more relying on their conventional face to face services, first name calling friendly environment, trust and secure feeling of transacting business with a person in a financial institution”.

According to Hamisah (2007:77) “there are several important decisions a bank must make in the development of online banking services. On the top of its priority list is to address the bank's privacy policy and procedures which will be scrutinized by the related governmental regulatory bodies. Several successful emerging information technology and security systems are reported now available in the marketplace. Those reported systems are able to protect customer privacy concerns and will remove one of the key concerns by current online banking customers”.


Hamisah (2007:77) further observes that the development of a comprehensive privacy policy and security system must be the first step in the implementation of online banking services, second on the priority list should then be focused on online banking disclosure policies to fully define the bank’s responsibilities, liabilities and also those of its customers regarding the e-banking service. The disclosure policy may differ from bank to bank but must share one important element regarding privacy. For instance, it should clearly speak out that it is the customer’s responsibility to maintain the confidentiality of one’s password, and to notify the bank as soon as possible in the event the password has been compromised. The next decision should consider the package of e-banking services to be offered to its customers, ranging from a standard package (including funds transfer and balance inquiries), or a more complex service offerings (including bond purchases, ACH file transfers, wire transfers, and e-payments), and even a whole package (including Federal tax payments, cash orders, bill payment, direct payment, new account enrolments, and commercial cash management).

Hamisah (2007:80-81) explains that there could be a huge cost savings from those online banking services. For example, assuming a consumer would need to write 10 to 15 checks per month on average. If e-payment service is used by 95 million households in the U.S., American consumers could save more than $5.6 billion annually in postage cost only. Finally, the development of online banking service has encouraged the adoption of a decentralized approach to give banks more needed flexibility to distribute Internet access to a much larger number of employees and potential customers. The decentralization approach is motivated by the fact that a decentralized system could respond to customers’ e-requests in a more timely fashion.

Hamisah (2007:81-84) observes that currently some banks have assigned an employee with the title of e-banking branch manager who will proactively manage the e-banking delivery to reduce response time to customers’ e-requests. In fact, the most criticized aspect of the current online banking service is the slow response to customers’ online requests. Customers do not like to be
ignored. Under today’s highly competitive market, banks must respond to customers’ requests in their online banking services more promptly and forcefully.

**Conclusion**

This chapter addresses the growth of online banking. Online banking has great facilities for customers, but many people are not aware who are residing in rural areas. But if banks are providing training for those people, they are very much interested in using e-banking facility. So banks instead spending fund on development of online banking can also spend fund and time for their customers. So both customers and banks would be benefited then the financial inclusive growth would be high in rural areas. The next chapter will explore the risk of the online transactions.
RISK OF ONLINE TRANSACTIONS

INTRODUCTION
The previous chapter explored online banking. This chapter focuses on the risk of online shopping. According to Horton (2006:50) “online shopping has become increasingly popular in the past decade to a point where it has become the preferred method for many consumers for some products and services. This rapid development has however spawned an increase in a number of fraudulent practices and many consumers have found themselves to be unfortunate victims”.

PERCEIVED RISKS
People are generally cautious about transactions which are not conducted on a face to face level. According to Mitchell (2009:33) “perceived risk is a key aspect in electronic commerce and the factors of perceived risk such as: financial risk, performance risk, time loss risk, psychological risk and source risk have a strong effect on the purchase intention of the online consumers. It refers to the uncertainty that the internet might not perform as desired and not deliver the benefits promised”. Mitchell (2009:33) elaborates “this risk includes: the difficulty of ascertaining, from web pictures, the characteristics of the products”. Hassan et al. (2006:56) state that this leads to a concern that the product delivered may not be exactly the same as it appeared on the web site. Horton (2006:50) explains that product performance risk is defined as the loss incurred when a brand or product does not perform as expected. While judging the quality of product or service online the consumers feel the lack of touching, feeling, and trying the product or service. The product color and shape may be different online than when he actually receives it after purchasing it, resulting in increased product performance risk.

PERCEIVED TIME LOSS RISK
According to Forsythe & Shi (2009:66) “time or convenience risk may refer to the loss of time and inconvenience the online shopper may face due to difficulty of navigation or submitting
order, finding appropriate web sites, or delays receiving products”. Koyuncu & Bhattacharya (2007:44) explain that the individuals prefer to buy less from the internet because the payments made through internet involve some risk and the delivery of items purchased from on-line takes longer time. This risk alludes to the amount of time that is required to receive the product. Hassan et al. (2006:56) are of the opinion that the time loss risk is related to: the time and effort lost in returning or exchanging the product; any technological problems such as a slow web site server; any technological difficulty encountered in browsing through the web site; time lost in waiting for the arrival of the product. Moreover, potential delays or difficulties in receiving the products ordered are of a great concern to some online shoppers.

**Perceived psychological risk**

Forsythe & Shi (2009:66) concede that the psychological risk may refer to disappointment, frustration, and shame experienced if one’s personal information is disclosed. Lim (2008:18) perceived psychological risk can be defined as the possibility that individuals suffer mental stress because of their purchasing behavior. Hassan et al. (2006:56) explained that perceived psychological risk reflects concern about the psychological discomfort and tension that may arise because of making a transaction online. Consumers consider how much comfort they will get with transactions over the internet. Choi & Geistfeld (2007:27) state that any frustration or displeasure of using e-commerce would be an important hurdle to consumer’s online shopping. Companies dealing with business online should provide easy to use web sites to cut down problems linked to the online shopping process for global consumers. Choi & Geistfeld (2007:27) further state that the consumer may feel that the information they provide online would be vulnerable as they lack control over the access, which others may have, to their personal information during the online navigation process. The psychological risk also restricts some consumers from providing information online. Some consumers are very outgoing and extrovert, they want to socialize; they may perceive risk of isolation by purchasing online; while some customers may be uncomfortable in using internet for shopping.
**Perceived source risk**

According to McCorkle (2007:45) “perceived source risk can be defined as the possibility that individuals suffer because the businesses from which they buy products are not trustworthy”. Hassan *et al.* (2006:56) explained that perceived source risk reflects concern over whether or not the prospective shopper can trust the online vendors and feels comfortable in doing business with them and is related to believability, trustworthiness, and expertise. Resnick *et al.* (2006:39-40) explained that it involves the set of perceptions that receivers have toward a source. Reputation of selling party, when it is positive, has been considered a key factor for reducing risk as it alludes to the quality of the online vendor that has been honoring a commitment to a consumer, in the past. Sharif *et al.* (2006:35) argue that it means that based on its reputation, a consumer is likely to infer that the selling party is likely to continue its behavior. A positive reputation would be inferred as the trustworthiness of the selling party and vice versa.

From the above there is a clear indication that consumers perceive risk because they face uncertainty and potentially undesirable consequences as a result of online shopping. Therefore, the more risk they perceive, the less likely they will purchase.

**Potential risks**

Banks are aware of potential risks of online shopping and they try to educate people in this regard. Bauer (2008:18) states that Banks often collect personal data from Internet users during banking sessions or as users browse the bank and website. Further, consumer information is sometimes shared or even sold to third party websites that lack the security measures of larger and well known banks. This means consumers are at higher risk of target marketing practices and even fraud. Online users may be solicited by thieves through emails requesting personal information such as social security numbers or bank account numbers. The emails may also ask users to go to a website that looks similar to their bank and website. Once users are on the phony website, they are prompted to provide information regarding their bank account, which can then be used illegally.
EDUCATION AS A STRATEGY TO REDUCE IDENTITY THEFT

This section discusses how Internet identity theft is perpetrated, and how education in this regard could help the customer to reduce these types of crimes. Phishing as an example of Internet identity theft is discussed in this section. This section concludes by providing important tips to customers on how to avoid becoming a victim of identity theft. Doolin et al. (2008:22) explain that research has shown that education will not only reduce identity theft but also encourage the customer to accept new technology. Doolin et al. (2008:22) also state that education is therefore an important strategy that should be adopted by the government and private sector in order to reduce identity theft crimes. According to Bhatnagar & Ghose (2009:25) “Phishing is an online fraud technique used by criminals to entice the consumers to disclose their personal information. Phishing is the fastest rising online crime method used for stealing personal finances and perpetrating identity theft”. Phishers use many different tactics to lure consumers, including e-mail and Web sites that mimic well known, trusted brands. A common phishing practice involves spamming recipients with fake messages that resemble a valid message from a well-known Web site or a company that the recipients might trust, such as a credit card company, bank, charity, or e-commerce online shopping site. The purpose of fake messages is to trick consumers into providing their personal information.

PHISHING ATTACKS

This section provides important information on how perpetrators carry out phishing attacks. By understanding the modus operandi of perpetrators, customers can avoid becoming victims of these types of attacks. Some useful tips on how to avoid becoming the next victim is also provided below. Miyazaki & Fernandez (2009:45-47) point out that customers who bank online will normally receive legitimate emails from their banking institutions. Customers should however become wary of illegitimate emails sent by fraudsters. A customer should not respond to an email which states that customers can also become victims when they interact with fraudulent website that looks like it came from their favorite departmental store. Customers may be tempted to make a purchase by clicking on the link that allows them to order an item. When
customers interact with the fake website, they disclose credit card information to this website from where it can be easily accessed by the perpetrator. Miyazaki & Fernandez (2009:45-47) further state that the perpetrator will then use the credit card information to make fraudulent purchases and to avoid becoming a victim of this particular type of scam, it is suggested that the customer type the URL of the department store to check whether it is legitimate or not. Miyazaki & Fernandez (2009:45-47) also state that legislation, education and awareness have not reduced identity theft significantly. Roselius (2006:67) states that legislation, awareness and education are strategies that have been employed by governments and the private sector in addressing problems relating to identity theft and despite these strategies, there are many factors that contribute to identity theft not being reduced significantly.

**Cookies**

According to Miyazaki & Fernandez (2009:45-47) most people access the Internet through the use of a web browser, which uses cookies as a piece of information generated by the web server and stored on the users' computer, ready for future use. The cookie is used with future transaction with the web server which uniquely identifies the user. Since cookies are often created without the consent or knowledge of the user, they can be used to customize the user experience by storing personal preferences but also can be used to log into a protected web site using authentication, i.e. storing usernames and passwords, credit card details, physical address and identity numbers. Although cookies are useful for the duration of the interaction with the web site, they can be employed for malicious intent. Users are made aware of this.

**Difficulties associated with prosecuting perpetrators of cybercrimes**

Miyazaki & Fernandez (2009:45-47) explain that the very nature of the Internet with massive amounts of information being shared and the protection of personal information not being enforced has made it difficult to apprehend and prosecute cyber criminals.
**Cyber inspectors**

According to Teo & Yeong (2006:34-44) “South Africa, the European Union and the United States of America have authorities that are responsible for ensuring that critical data is adequately managed”. Teo & Yeong (2006:34) further state that in South Africa, the Minister of Communications can appoint cyber inspectors to manage critical data. When compared to the United States and the European Union, cyber inspectors in South Africa have a more clear and defined role in monitoring the activities of cryptographic and authentication providers.

**Cyber crime**

According to Teo & Yeong (2006:34-44) “cybercrimes are crimes that are committed on the Internet. One such example is the theft of customer’s personal information on the Internet. It is important that customers are educated about what constitutes a cybercrime because they will be in a position to report such crimes to the National Regulator when they occur”. Teo & Yeong (2006:34-44) also state that reporting a cybercrime will result in a reduction in identity theft. The most crucial element of the Act is that for the first time, a person can be found guilty and convicted of cybercrime.

The following are snapshots of different banks that caution customers about online risks:

**ABSAA Banking Website**
Figure 2, above, is a snapshot of ABSA’s contribution to internet fraud. ABSA is currently offering Trend antivirus to all its clients for free. The anti-virus is active for a full year at no cost.

Reference: FNB(2012)

FNB Scam warning

The above (figure 3) illustrates how FNB warns their clients about cybercrime.

Reference: FNB(2012)

FNB awareness campaign

The above figure 4 is another of FNB’s awareness campaigns against cybercrimes.

NEW ISSUES AND CHALLENGES FACING ONLINE-BANKING IN RURAL AREAS

According to Karjaluoto *et al.* (2008:100-106) “trust is essential in situations where risk, uncertainty and interdependence exist and the online environment certainly encapsulates these factors”. Karjaluoto *et al.* (2008:100-106) also argue that in an online environment, there is no
direct physical contact between buyer and seller. This spatial distance means that consumers cannot use the physical cues, such as observing the sales staff or the physical office or store space, in order to judge trustworthiness.

Rehm (2011:10) agrees, by suggesting that due to the global nature of the Internet, consumers and e-retailers often face spatial and temporal separations, and as a result, transactions carried out online often do not involve a simultaneous transaction of goods (or services) and money. This delay in time means that consumers can become increasingly uncertain whether the other party will actually perform their side of the transaction. Hackett (2010:14) states that another reason for the increased need for trust in the online contexts is consumers’ fear for the safety of their personal information due to hackers or other harmful possibilities. Daniel & Story (2009:33) argue that apart from the necessities of trust in order to get consumers to purchase online as per the theory of reasoned action, trust is also important for businesses to grow and maintain profitability, as per the commitment-trust theory of relationship marketing. Barnes & Corbitt (2009:90) state that past research studies have identified that one of the benefits of trust are committed customers. Boss et al. (2007:24) state that loyal repeat customers are highly beneficial to organizations, as it is much cheaper to retain customers than to find and attract new customers in the online arena where substitutes are readily available. Hitt & Frei (2007:44) emphasize that the benefits of businesses having committed customers are plenty, hence the amount of research into the area. Graven (2008:12-14) explains that the numerous research studies have been conducted to identify what factors drive or inhibit the adoption of e-banking by consumers. It has been identified that the lack of trust was one of the main reasons why consumers are still reluctant to conduct their financial transactions. Hughes (2007:5) maintains that in order for e-banking to be a viable medium of service delivery, banks today must try to narrow the trust gap due to the higher degree of uncertainty and risk in an online environment compared to traditional settings. Beckett (2008:56) states that the research studies conducted examining the role of trust in e-banking found that trust plays a key role in the adoption and
continued use of e-banking. Durkin & Bennett (2009:89) state that it was found that trust not only affects the intent to use e-banking but trust in e-banking has also been found to be an antecedent to commitment in e-banking and is therefore useful to reduce the perceived risk that consumers feel is present in an online environment.

**THE RURAL AREAS: PERCEIVED RISK AND TRUST IN ONLINE BANKING**

According to Feinman *et al.* (2009:30) “perceived risk is depicted as a concept that is ‘complex, multifaceted and dynamic’”. Ebling (2011:31) emphasizes that perceived risk is a consumer’s perceptions of the uncertainty and the possible undesirable consequences of buying a product or service and also state that in the online context, past research studies suggest the inclusion of perceived risk due to its importance in influencing online consumer behavior and more so in the area of e-banking.

According to Hackett (2010:56-60) “the body of the knowledge on trust has identified that risk is the element which gives rise to the need for trust when engaging in an activity which means that if there were no perceptions of risk, trust would not be necessary to engage in an activity, as actions could be taken with complete certainty and also states that there are two different types of risk that have been identified in relation to trust risks associated with a partner and risks associated with a type of transaction”. Duran (2008:34) states that this type of risk should be inversely related to trust of that partner. Essentially, the higher the trust one has in a partner, the less perceived risk in dealing with that partner. However, risk associated with a type of transaction has a different association with trust. The more risky a type of transaction is perceived to be, the more trust is required in order to engage in an interaction with that partner.

Hackett (2010:65-67) states that “the relationship between risk and trust is a complex one, whilst risk is necessary to the creation of trust, it is not an antecedent to trust which means the presence of risk does not automatically equate to the formation of trust”. According to Furash (2009:50) it is unclear whether risk is an antecedent to trust, or is an outcome of trust. Clearly, a gap of
knowledge exists in this area, and further research is required so as to determine the relationship which risk has with trust, especially in the context of e-banking.

Pavlou (2008:70) discovered that the effect of trust on transaction intention could be moderated through perceived risk. Mayer et al. (2007:22) postulated that the level of trust needed to engage in a risk taking behavior is influenced by the perception of risk inherent in that behavior.

**The Electronic Communications and Transactions Act of June 2002 (ECT)**

The Electronic Communications and Transactions Act 2002 is an important Act for the following two reasons:

- Firstly, for the first time legislation has made it possible for an individual to be prosecuted if found guilty of cybercrime.

- Secondly, this Act made it possible for subsequent legislations relating to information security to be passed in parliament. It therefore formed the cornerstone for many important IT related legislations to follow.

The purpose of this section is, therefore, to provide a brief background of the contents of the Act. Only those parts of the Act which pertain to the promotion of consumer protection, electronic communication and transaction, fraud and ethics are considered.

**The objectives of the Act**

The main objectives are encapsulated as follows (Electronic Communications and Transactions Act 2002: 8):

- To enable and facilitate electronic communications and transactions in the public interest.

- To promote e-commerce.

- To develop a safe, secure and effective environment for e-commerce.
According to the Act, a “data controller” is defined as any person who electronically requests, collects, collate, processes or stores personal information about a data subject. The Act defines a “data subject” as any person from whom this data has been electronically requested (Electronic Communications and Transactions Act 2002: 6). An example of a data controller is a business enterprise and an example of a data subject is a customer.

The broad principles of the Electronic Communications and Transactions Act of 2002 are based on the principles of data protection legislation of the European parliament known as the 95/46/EC directive (The Electronic Communications and Transactions Act 2002). Kim et al. (2008:28) allude that electronic Communications and Transactions Act of 2002 have however, additional principles not contained in the 95/46/EC directive, these are:

- The data collector can keep the data for a period of one year after having used the data.
- The information collected may not be given to a third party unless required by the law.
- If the personal information was required legally to be given to a third person, then the data controller must keep a record of this. The information that should be kept is the date it was disclosed to the third person and the purpose for which the data was required.
- All obsolete information must be deleted by the data controller.
- The organization controlling the personal information may use the data for statistical analysis provided the results may not be linked to any individual or organization.

**THE CONSUMER PROTECTION ACT OF 2008**

This legislation focuses mainly on the role of the supplier. Consumers should be aware of the legislative boundaries within which the supplier can operate. If customers suspect that business has committed any violations regarding their personal information security, then they should report such transgressions to the National Regulator.

**THE PROTECTION OF PERSONAL INFORMATION BILL OF 2009**

When this Bill becomes an Act of parliament, it will be the latest legislation regarding personal information security and will also become the most important legislation for consumers. This
Bill has additional principles not contained in the Electronic Communications and Transactions Act of 2002 and The Consumer Protection Act of 2008. The broad principles of the Protection of Personal Information Bill of 2009 are based on the principles of data protection legislation of the European parliament known as the 95/46/EC directive.

**Security safeguards**

Lopez-Nicolas & Molina-Castillo (2008:98-100) state that one of the main challenges facing business is to ensure that personal information collected from customers is secure. Customers lose faith in organizations that have poor security systems that can be easily breached. The image of the company also suffers as a result of breaches. Lopez-Nicolas & Molina-Castillo (2008:98-100) also state that it is important that organizations invest in systems that will convince customers that their personal information is secure in the hands of business. The Protection of Personal Information Bill of 2009 as well as the 95/46/EC directive of the European Union makes it mandatory for the data collector (such as a business organization) to be responsible for the security of personal information of customers. Lopez-Nicolas & Molina-Castillo (2008:98-100) further state that the organization responsible for collecting the data must ensure the following:

- **Processing special personal information**

  Lopez-Nicolas & Molina-Castillo (2008:98-100) state that the Protection of Personal Information Bill of 2009 makes it possible for the data collector not to process certain categories of data. The 95/46/EC directive of the European Union also has a section that specifies what categories of an individual’s information should not be processed.

  Mitchell (2009:78) the Protection of Personal Information Bill of 2009 is however more specific with regard to this following instance:

  - A child who is subject to parental control in terms of the law.
- A data subject in terms of his religious beliefs, political opinion, race, health, sexual life or criminal behavior.

**UNSOLECITED ELECTRONIC COMMUNICATIONS**

Jarvenpaa & Tractinsky (2008:60) maintain that Legislation regarding unsolicited emails (Spam) is more stringent in the European Union when compared to the United States of America and South Africa. The United States of America lacks uniformity in this regard as different states have their own legislation regarding unsolicited emails whereas the 95/46/EC directive of the European Union has a more uniform policy regarding Spam. Jarvenpaa & Tractinsky (2008:60) also state that although Spam in general is not illegal in South Africa, there are certain instances when an organization can be found guilty of infringements in this regard. Jarvenpaa & Tractinsky (2008:60) further state that the Protection of Personal Information Bill of 2009 processing of personal information of a data subject for the purpose of direct marketing by means of automated calling machines, facsimile machines, SMS’s or e-mails is prohibited unless the following has been adhered to the Protection of Personal Information Bill of 2009.

**TRANSFER OF INFORMATION ACROSS BORDERS**

Jarvenpaa & Tractinsky (2008:67) state that since communication via the Internet has become a global phenomenon, transferring personal information across borders for the conclusion of a transaction is becoming common. The security of the data subjects’ information must also be protected during the transfer of data across borders. Jarvenpaa, Tractinsky & Vitale (2008:67) also state that the 95/46/EC directive of the European Union and The Protection of Personal Information Bill of 2009 (South African Legislation) makes provision for the transfer of data across borders.

**DUTIES OF A REGULATOR**

According to Kim *et al.* (2008:28) South Africa’s legislation makes it possible for a National Regulator to be appointed by the Minister of Telecommunications to ensure that data is adequately managed. In the European Union, data is managed by Data Protection Authorities.
while in the United States of America the Federal Trade Commission is responsible for management of the data. They also state that the duties of the National Regulator, the Data Protection Authorities and the Federal Trade Commission are similar. The Protection of Personal Information Bill of 2009 (this Bill is expected to become a South African law in 2011) has however explicitly defined the role of the National Regulator.

**THE CONSUMER PROTECTION ACT OF 2011**

This Act constitutes an overarching framework for consumer protection, and all other laws which provide for consumer protection, usually within a particular sector will need to be read with this Act to ensure a common standard of protection. All suppliers of goods and services will need to take note of the new measures and ensure that they are able to comply effective with the Act.

**RIGHT TO RESTRICT UNWANTED DIRECT MARKETING**

The provisions in the Act which regulate direct marketing extend to all communication for the purposes of direct marketing (not only direct marketing via electronic communication). Johan (2011:1-20) emphasizes that in terms of section 11, a consumer may either refuse to accept, preemptively block, or require another person to discontinue any communication which may be seen as direct marketing. This may include telephone calls, e-mails, brochures or letters in the mail. The National Consumer Commission will facilitate the establishment of a registry where a consumer may register their particular preferences. For example, that a consumer wishes not to receive any direct marketing or, where he previously agreed to receive marketing material, he now wishes to change his mind and requires the marketer to stop marketing to him directly. Businesses will have to ensure that they have measures in place to receive and record consumer’s specific preferences and abide by these expressed preferences.

**CONSUMER’S RIGHT TO COOLING-OFF PERIOD AFTER DIRECT MARKETING**

This section provides for a 5 business day cooling off period in instances where transactions resulted from direct marketing, in other words, transactions which were not initiated by the consumer. Johan (2011:1-20) alludes that the five business day period will commence on the
latter of the day on which the transaction or agreement was concluded, or the day on which the goods or services were delivered to the consumer. Johan (2011:1-20) also states that this section does not apply to transactions which are governed by section 44 of the Electronic Communications and Transactions Act, 2002. A supplier must return any payment received from the consumer in terms of the transaction within 15 business days after receiving notice of the rescission, if no goods had been delivered to the consumer in terms of the transaction; or receiving from the consumer any goods supplied in terms of the transaction; and a supplier may not attempt to collect any payment in terms of a rescinded transaction, except as permitted in terms of section 20(6).

**SAFETY MONITORING AND RECALL**

Johan (2011:1-20) argues that the Act introduces a streamlined approach to safety monitoring in that it obliges the National Consumer Commission to promote the development and adoption of industry wide codes of practice in terms of which industries will monitor safety of their products. This includes the introduction of systems to receive and investigate complaints, recall goods, and reporting on certain matters to the National Consumer Commission. However, the National Consumer Commission may require the importer or producer of particular goods to carry out a recall of the product where the National Consumer Commission has reasonable grounds to believe that goods are unsafe, and the producer or importer of the goods has not taken the necessary steps in terms of the applicable industry code to ensure public safety.

**INDUSTRY CODES**

Johan (2011:1-20) elaborates “the act provides for procedures to be followed before the Minister approves and publishes an industry code in the Government gazette. The Act requires the National Consumer Commission to consult the public and relevant stakeholders before it recommends a proposed industry code to the Minister for the approval. In turn, the Minister is provided with the authority to prescribe, approve or withdraw a previously approved industry code. The Minister may withdraw an industry code on the recommendation of the Commission, who has the authority to review the effectiveness of a code at intervals of five years. Also, where
an industry code provides for an alternative dispute resolution scheme, the Act allows the Minister to accredit such a scheme as an Ombud with jurisdiction. This means that the scheme will be officially recognized in the whole scheme of redress as provided for in the Act. For example, where a consumer has a dispute with a supplier within the particular industry, the consumer may lodge a complaint with the industry Ombud, before to approaches the National Consumer Commission for assistance”.

**CONCLUSION**

This chapter addresses the risk of online transactions. Although online transactions has become increasingly popular and many consumers preferred it but this rapid development has, however, spawned an increase in a number of fraudulent practices and many consumers have found themselves to be unfortunate victims of phishing, crime ware and identity theft. However, with Norton Internet Security’s ground-breaking features, the risk is minimized. The next chapter will explore money and African culture.
MONEY AND AFRICAN CULTURE

INTRODUCTION
The previous chapter addressed the risks of online banking. This chapter discusses the life of Zulu people. It speaks about financial development, wealth protect and savings. According to Zulu (2011), “the Zulu’s traditional religion was centered on ancestor worship and the spirits of the ancestors (called Amadlozi). These ancestral spirits guided people’s daily lives and sacrifices were therefore made to appease these spirits. The Zulu people still believe that the ancestors can only be seen in dreams and the soothsayers (called sangomas). The sangomas are the only people who have the power to communicate with the ancestral spirits”.

TRAITIONS AND ECONOMY OF RURAL PEOPLE
According to Haskins (2005:13-21) “traditionally, the Zulu economy depended upon cattle and a considerable amount of agriculture. Villages were economically self-sufficient. Agriculture was the sphere of women, whereas cattle were tended by the men”.

LOCATION
According to Haskins (2005:13-21) “9 million Zulu-speaking people lived mainly in KwaZulu-Natal Province of South Africa. Some were also scattered throughout the other provinces. KwaZulu-Natal borders Mozambique in the north, Eastern Cape in the south, the Indian Ocean in the east, and Lesotho in the west. The capital city is Pietermaritzburg. KwaZulu-Natal is semi-fertile with a flat coastal plain, highlands to the west, and numerous rivers and streams. The subtropical climate brings lots of sunshine and brief, intense rain showers”.

Haskins (2005:13-21) elaborates “many Zulus still live in traditionally structured rural communities; others have migrated to urban areas. However, links between urban and rural
residents remain strong. A mixture of traditional and Western ways of life is clearly evident in the lives of almost all Zulu people”.

**Language**

Haskins (2005:13-21) goes further to say the dominant language in South Africa is isiZulu. In KwaZulu-Natal, the most frequently spoken languages are isiZulu and English. isiZulu is idiomatic and proverbial and is characterized by many clicks. It is characterized by hlonipha (respect) terms. Addressing those who are older than oneself, especially elderly and senior people, by their first names is viewed as lack of respect. Therefore terms like baba (father) and mama (mother) are used not only to address one’s parents but also other senior males and females of the community.

**Folklore**

According to Khuzwayo (2006:34-37) among the Zulus, the belief in ancestral spirits (amadlozi or abaphansi) has always been strong. These are the spirits of the dead. The Zulus recognize the existence of a Supreme Being, UMvelinqangi (One Who Came First) or uNkulunkulu (Very Big One), God because he appeared first. This Supreme Being is far removed from the lives of the people and has never been seen by anyone. No ceremonies are, therefore, ever performed for uMvelinqangi. Zulu people believe that the spirits of the dead mediate between uMvelinqangi and the people on earth. Zulus believe in a long life that continues after death. Getting old is seen as a blessing.

**Religion**

Khuzwayo (2006:34-37) describes the ancestral spirits as important in Zulu belief system. Offerings and sacrifices are made to the ancestors for protection, good health, and happiness. Ancestral spirits come back to the world in the form of dreams, illnesses, and sometimes snakes. The Zulu also believe in the use of magic. Anything beyond their understanding, such as bad luck and illness, is considered to be sent by an angry spirit. When this happens, the help of a diviner (soothsayer) or herbalist is sought. He or she will communicate with the ancestors or use natural herbs and prayers to get rid of the problem.
According to Macnamara (2008:26-30) “many Zulus converted to Christianity under colonialism. Although there are many Christian converts, ancestral beliefs are far from disappeared. Instead, there has been a mixture of traditional beliefs and Christianity. This kind of religion is particularly common among urbanites. There are also fervent Christians who view ancestral belief as outdated and sinful”.

**LIVING CONDITIONS**

According to Khuzwayo (2006:34-37) “in South Africa, living conditions cannot be divorced from local politics. Conditions for the Zulus are similar to those of other Black people. Zulus in most of the rural areas do not have adequate basic services such as electricity, clean water, formal housing, transport, hospitals, or clinics. Urban Zulus live in the so-called Black townships and the areas fringing industrial cities. Their living conditions are, at least, better than those in rural areas. They constitute the Zulu middle class; their lifestyle is usually no different from that of other Western urbanites”. Macnamara (2008:26-30) adds that since the education available in rural Black schools is inferior, the people in these areas are not equipped to migrate and seek a better life in the urban areas. If they migrate, most end up in the poor areas fringing cities. In the rural areas of KwaZulu-Natal, a typical Zulu homestead will be circular and fenced, with a thatched-roof house.

**CLOTHING**

According to Khuzwayo (2006:34-37) “everyday clothing of a Zulu is no different from that of any modern urbanite. Traditional clothing, however, is very colourful. Men, women, and children wear beads as accessories. Men wear amabheshu, made of goat or cattle skin, which look like waist aprons, worn at the back. They decorate their heads with feathers and fur. Men also wear frilly goatskin bands on their arms and legs. Women wear isidwaba, a traditional Zulu black skirt made of goat or cattle skin. If a woman is not married, she may wear only strings of beads to cover the top part of the body. If she is married, she will wear a T-shirt. Zulus only wear their traditional clothes on special occasions, such as King Shaka’s Day and cultural gatherings”.

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SUSTENANCE

According to Khuzwayo (2006:34-37) “the rural Zulu economy is based on cattle and agriculture. Consequently, the main staple diet consists of cow and agricultural products. This includes barbecued and boiled meat; amasi (curdled milk), mixed with dry, ground corn or dry, cooked mealie-meal (corn flour); amadumbe (yams); vegetables; and fruits. The Zulu traditional beer is not only a staple food but a considerable source of nutrition. It is also socially and ritually important and is drunk on all significant occasions”.

Macnamara (2008:26-30) explains that drinking and eating from the same plate was and still is a sign of friendship. It is customary for children to eat from the same dish, usually a big basin. This derives from a share what you have belief which is part of ubuntu (humane) philosophy.

EDUCATION

According to Macnamara (2008:26-30) “illiteracy (inability to read and write) is high among most Black South Africans. However, education is slowly improving with the new government. Before, children went to school only if their parents could afford to send them. Schooling started at seven years of age and continued until about twenty-four years of age. Since education was not compulsory, pupils could take their time to finish Matric (high school). Passing matriculation (graduating) was and still is regarded as a high achievement by the whole community. After matriculation, those parents who can afford it usually send their children to college”.

According to Macnamara (2008:26-30) “education and raising a child is like a cycle among the Zulus, parents spend all they have to raise and educate their children. In turn, the children take care of their parents and their own children when they start working. A person who breaks this cycle is viewed as a community outcast, one who has forgotten about his or her roots”.

EMPLOYMENT

Macnamara (2008:26-30) elaborates “in the past, only able-bodied men were supposed to work. Before the 1970s, especially in rural areas, being able to send a written letter and get a reply meant that a young boy was ready to go and look for work. Now Zulus want to complete their
high school education. In the mind of the Zulu, work should benefit either one’s parents or children and siblings. The first salary (or the bigger portion thereof), therefore, is usually given to parents in return for blessings”.

**ADOPITION OF NEW ECONOMY**

According to Zulu (2011), the Anglo-Boer war of 1899-1902 gave the British control over the Boer Republic. After lengthy negotiations, the Union of South Africa was formed in 1910, from our provinces of the Cape, Natal, Orange Free State, and Transvaal. Although the union was self-governing, the representatives of each province were white. Almost all the Black people of the country were unable to vote and had no political rights.

Zulu (2011) explains that the development of gold and diamond mining industries in the 1870s created a labour shortage. Workers were recruited from other areas. This established a practice in South Africa of the use of migrant labour. By 1910 there were nearly 184,000 Africans employed in the gold mines.

According to Zulu (2011) the development of industries and the participation of the Zulu people in them put Zulus in a new context and perspective. They found themselves part of a larger section of Black people who were not allowed political rights and so devised strategies to get those rights. It was the awareness of belonging to a wider group of deprived people that led to the creation of the African National Congress (ANC) in 1912 by Dr. P. KaSeme. He was a young lawyer with an American degree. Although Dr. Seme was a Zulu with close ties with the Zulu royal family, he did not let that limit him in the ANC. He realized the political struggles of the Zulus needed to be united into a front of all the indigenous people of South Africa. The creation of the ANC was a political response to the 1909 Act. The act created the union but deprived the African people of any say in their future.
APARTHEID

According to Zulu (2011), “in South Africa there are four main racial groups: the Whites, the Coloreds, the Asians, and the Africans. Many laws were passed to implement separation of these groups. Segregated areas were established for each race to live in”.

Zulu (2011) points out that those Blacks were only allowed land in the African Reserves. Black workers had many restrictions put on them. The races were to be educated separately. Laws encouraged every adult Black male to carry a reference book at all times containing information about himself, which was to be presented to the police upon demand.

THE STRUGGLE FOR RIGHTS

Zulu (2011) maintains that African people expressed their reaction to apartheid through intensified political activities through organizations. One of these organizations was the African National Congress. Because of this, the ANC was banned and its leaders were imprisoned. Nelson Mandela, once a leader of the ANC was imprisoned in 1960. Many other leaders were also imprisoned, and other political movements were banned.

According to Zulu (2011) the Zulu people chose Chief Buthelezi as their leader within the area set aside for the Zulu occupation known as Kwa-Zulu. Buthelezi led a movement called the National Cultural Liberation Movement. It has been described as the largest political organization yet seen in South Africa. It drew membership from the grass roots as well as from Urban-Based people. Buthelezi resisted government attempts to turn Kwa-Zulu into an independent state (homeland), as it happened with some other Black territories in South Africa.

ZULU LIFE TODAY

According to Zulu (2011), there have been more widened cultural and economic horizons than education and industries. Christianity and mobility that had brought freedom of movement and of choice were curtailed by apartheid restrictions. Despite this, like most Black people in South Africa, the Zulu people have made the best use of what they assume is entitled to them.
Zulu (2011) emphasizes that the Zululand University opened in 1960. It offered degrees in Education, Law, Science, and Social Sciences. A good number of graduates had received higher education in American and British Universities. Zulu life has had to change greatly to meet the demands of all these developments.

Zulu (2011) also states that the land available cannot support rural population. It is insufficient both in quantity and quality. Most of it is only good for raising livestock, not for growing crops. Migrant labour has become a pattern of life. Most city workers visit home only once a month, for others it is even worse.

Zulu (2011) argues that the kinship culture is now a thing of the past. The Zulus no longer practice it, due to restrictions on choice of lifestyle and the demands of a monetary economy. Mobility encourages the diffusion of family groups. As a result, people now seek new ties to replace the ones they had with kinship. They find these new ties in organizations, such as church associations.

**CURRENT TRENDS IN BANKING IN AN AFRICAN RURAL VILLAGE**

During the pre-industrial era, the main economic activity that existed within the African people was agriculture. They used a method of barter system in trading with one another. Barter as defined by John & Sons (2012:30-34) is a method of exchange by which goods or services are directly exchanged for other goods or services without using money.

This took place in a form of cattle, goats, beads, vegetables such as beans, mealies and many others. When the European colonial powers introduced monetary system as a form of trade to African people, they had to move away from using barter system to using money.

With the rise of industrialization, many African people turned away from the soil to working in industries. Money accumulated from working in industries was used for maintaining households and also some was kept for times of economic crisis.
To keep money, they used to dig an unmarked hole within the vicinity of their traditional dwelling. Women kept it in their breasts and some would keep it in very small handmade bags and wear them round their necks.

The emergence of banks called for people to leave their old methods of keeping money at home to adopting the banking system. This created a lucrative amount of perceptions in the minds of African Black people-perceptions such as if you put money in the bank, you will never see it again.

Gradually, they got used to the banking system. Today millions of Black African people in the workforce are using banks to withdraw money paid by their employers. To some people, especially those in the informal sector, the practice of keeping money at home still exists.

Due to the technological development, banks are introducing new methods in the banking system. We now have internet banking, cell phone banking and many more. This rapid transformation is creating a sphere of confusion in which people are not sure whether to adopt the newly invented system or lag behind. As more people gain access to online facilities, security concerns are still frequent amongst many users especially Black African communities that are using online banking for the very first time.

According to Blake & Associates (2012), 44% in urban areas use internet banking and 27% in rural areas, suggesting that rural areas lag behind urban users by about a year in take-up of these services.

Most rural communities do not trust online banking because they perceive the risk to give the unknown person to save their money (Flora et al. 2003).

**Current Trends in Shopping in an African Rural Village**

African rural people generally are used to buying their groceries in the tuck shop stores that are owned by one of the community members. Due to the economic development their lives change
and they now have to engage in the new technology of shopping online to improve their lives, although some rural people are lagging behind to adopt this new technology of shopping online because of lack of information.

**INTERNET PURCHASES IN RURAL AREAS**

According to Donthu & Garcia (2009:40-48) rural areas continue to lag behind their metropolitan counterparts on many indices including population growth, incomes, and employment changes. One difficulty faced by small rural communities has been the inability of main street stores to compete with large discount centres or regional shopping outlets. More recently, the impact of growing Internet sales and possible effects on small rural businesses, especially in communities without broadband access, are of concern. Donthu & Garcia (2009:40-48) state that the fact that rural areas lag behind their metropolitan counterparts in Internet access has been well-documented. Widespread attention has been paid to the effects on rural communities from a lack of access including the impact on social capital and volunteerism. One positive note is that although rural areas lag behind in access, rural residents are catching up and using the Internet more.

According to Liao & Cheung (2008:23-26) “Internet affects rural areas in two ways. First, it offers low cost marketing opportunities for rural businesses so that they can reach a much broader clientele. Small service businesses, for example, that formerly required close proximity to customers in large metropolitan areas can now locate in remote rural areas with lower operating costs and market to customers over the Internet. Niche markets for specialty products grown or made in remote rural areas are also opened up with the Internet”.

Second, “the Internet allows rural residents, especially those in remote areas, to make purchases more conveniently and often at lower prices. Thus, small retail stores with limited offerings experience substantial competition from distant retailers offering a wide selection of merchandise at lower prices and a low delivery cost. The advent of discount stores in the past brought major competition mainly for inexpensive merchandise but retailers in small towns still possessed a
relative monopoly power for higher quality merchandise”. Internet sales now reduce or eliminate
that monopoly power for a much broader range of merchandise. Liao & Cheung (2008:23-26)
state that in the early Internet years, retail storeowners were encouraged to create Web pages to
compete more effectively with large companies. Given the relatively small inventories maintained
by rural retailers, the effectiveness of this approach as a general strategy is questionable,
especially when these stores must compete with large mail order businesses who now market
over the Internet. The initial fear, however, is that rural businesses not on the Internet would
lose opportunities to replace land-based customers lost through population out-migration or
those commuting to large communities to work and shop. Liao & Cheung (2008:23-26) further
state that the effects of online shopping access, especially in rural areas are not well understood.
Authors have reported major growth in Internet sales across a wide cross-section of consumer
groups. Others cautioned that consumers would not easily convert to online shopping, and the
impact of the Internet might be less than initially expected. Some resistance to using credit cards
online or otherwise releasing private information in a distant relationship was expected. For
example, one might hypothesize that elderly and other rural residents with a more conservative
attitude might resist buying over the Internet and thus might provide a strong market for rural
businesses. This resistance could benefit small stores in rural areas that rely on customer
familiarity and personal attention as marketing tools.

Antony, Lin & Xu (2006:44-48) have observed that many studies document that Internet users
have changed markedly in the past several years. Initially, Internet users were high income,
career-minded consumers. The Internet clientele now much more closely reflects the national
population. The average age of Internet users has increased, and lower socio-economic classes
have become more active users. Not everyone uses the Internet for the same purposes, however.
Recent evidence, for instance, suggests that lower socio-economic groups tend to access
entertainment sites, rather than to access shopping sites. Elderly residents more often use the
Web to visit sites for travel, auctions, and greeting cards. Libraries, in some areas, have
successfully hosted programs to train elderly residents in Internet access so that they can communicate with family members who have left the area. Antony, Lin & Xu (2006:44-48) argue that as more businesses in rural areas use the Internet in their daily operations and workers gain familiarity with its use, shopping online will likely increase even in remote rural areas. There is recent evidence, for instance, from the Illinois Rural Life Panel (IRLP) that participants regularly access the Internet at their place of work whether or not they have access at home. Antony, Lin & Xu (2006:44-48) further state that mass merchandising, whether through the mail or the Internet, offers economies of scale because of purchasing in volume, which can translate into lower prices. Recent research shows that Internet shoppers have purchasing patterns much like they do in regular stores. Thus, lower prices, greater selections, and relative ease in online purchasing practices work against stores in small rural communities.

**Conclusion**

This chapter addressed money and African culture. Rural Zulu people raise cattle and farm corn and vegetables for subsistence purposes of saving the money. The men and herd boys are primarily responsible for the cows, which are grazed in the open country, while the women do most, if not all, of the planting and harvesting. The women also are the owners of the family house and have considerable economic clout within the family. Due to the economic development the African societies and their cultures have undergone continual change as far back as history and prehistory can illumine, and their experience of several centuries of the overwhelming economic, military, social, and cultural power of colonial overrule has led to both changes and stagnation. A framework for online shopping is conceptualized in the next chapter.
CONCEPTUALISING A MODEL FOR ONLINE COMMERCE IN RURAL VILLAGES

INTRODUCTION

This chapter attempts to provide a conceptual model for online commerce in rural villages. A conceptual model is a prototypical model which the researcher presents by making use of other models within the field of study (Reichel & Ramey, 2008). In this case the researcher uses communication models to develop a model for online commerce in a rural context.

The model has several purposes, and several accompanying ways of assessing whether it is productive. The main purpose or goal of the model is to pose questions that provide explanations about phenomena, but there are other more specific uses for it as well. According to Roseberry (2009:9) logical consistency of the model is based on the assumptions behind it and what it is theorizing about. For example, one could theories that people with advanced college education tend to live in elite suburbs. But the theory would have little appropriateness, since there is nothing that logically connects a person’s street address with their educational achievement.

The second factor is the shift concerning the nature of the entities that are being studied and their mode of action which relate to ecommerce in rural areas. According to Roseberry (2009:21) it is wise to consider conceiving of human beings as people and their mode of action as social beings.

This chapter conceptualizes a model for online commerce in a rural context by examining Shannon & Weaver’s model of communication in conjunction with the Technology Acceptance Model.
Understanding a Model

According to Roseberry (2009:24-27) a conceptual framework is used to outline possible courses of action or to present a preferred approach (or a model) to an idea or thought. A conceptual framework is a type of intermediate theory that attempt to connect aspects of inquiry. Further, conceptual frameworks take different forms depending upon the research question or problem.

A model is a controlled illustration of an object or event in ideal and abstract form. Models are arbitrary by nature. In its abstract form certain details are eliminated to focus on essential factors. The key to the usefulness of a model is the degree to which it conforms to the underlying factors of communication behavior. Communication models are merely pictures; they can even be distorted pictures, because they stop or freeze an essentially dynamic interactive process into a static picture. Models are metaphors. They allow us to see one thing in terms of another.

The Advantages of Models

Models probe one to ask questions. Therefore, a model is useful when it provides a general perspective as well as a point of reference to interpret raw data and to ask questions. Although models are flexible, they generate calculated pathways to obscure destinations.

Models also assist to clarify complex events (or issues). They do this, as Chapanis (2006:47) notes by reducing complexity to simpler, more familiar terms. Thus, the aim of a model is not to ignore complexity or to explain it away, but rather to give it order and coherence. It is important to note that, especially in third world countries, conceptual frameworks should be as simple as possible to ensure successful implementation.

Limitations of Models

Sometimes, models can lead to oversimplification. This is the ideology that most of the work in designing communication models, and illustrates that anything in human affairs which can be modeled, is too superficial to be given serious consideration.
Technology Acceptance Model

According to Davis (2010:30-34) “Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new software package, a number of factors influence their decision about how and when they will use it”.

The Technology Acceptance Model suggests that when users are presented with new technologies, two important factors will influence their decision, namely Davis (2010:30-34):

- Perceived usefulness and
- Perceived ease-of-use.

Perceived ease of use and perceived usefulness predict attitude toward use of technology. Attitude toward use predicts the behavioral intensity to use. Finally, intention predicts the actual use of the technology. If the technology is indeed useful and easy to use, then the individual will accept the technology. The converse will, however, also be true. If the technology is not useful and is difficult to use, then the user will reject the technology. The main dependent constructs are ‘behavioral intention’ to use’ and ‘system usage’. The main independent constructs are ‘perceived usefulness’ and ‘perceived ease of use’.

Reference: Davis (2010)
The Technological Acceptance Model applied to ecommerce activities

Chau (2008:56) extends the Technology Acceptance Model by taking perceived risks into account. According to Chau (2008:56) consumers will avoid using a new technology if they feel that there are risks and uncertainties involved. An example of such a risk is crimes committed on the Internet. Internet associated risks have been integrated with the model. Although the technology may be easy to use and is useful, customers will reject this technology because of the perceived risks. Consumer perceptions regarding these risks should therefore be addressed if the technology is to be embraced. Legislation, awareness and education are strategies that can be employed to address these risks.

The Technology Acceptance Model applied to information security

According to Amoako-Gyampah & Salam (2009:88) Technology Acceptance Model (TAM) applied to Information Security also provides a platform for customers to take the necessary steps when they become victims of identity theft. The Conceptual Research Model also has confidence in information security as one of the variables that are important to customers. Amoako-Gyampah & Salam (2009:88) also state that research has shown that customers have more confidence in businesses that invest in updated security systems when compared to businesses that employ outdated security measures. Business should therefore invest in a secure environment to reduce data breaches and gain the confidence of customers. Amoako-Gyampah & Salam (2009:88) argue that education and awareness programmes are also variables that are included in the model as important factors in reducing identity theft. Business and government must therefore invest in awareness and education campaigns to reduce identity theft. According to Agarwal & Prasad (2009:66) education and awareness drives will result in fewer victims of identity theft and business will experience fewer breaches. The framework also takes into consideration prior information security experiences, confidence in information security and perceived risks as factors that influence the development of the information security model. They point out that customer will most likely not support enterprises that have a record of prior
breaches as they will lose confidence in these organizations. Organizations that have experienced breaches in the past should therefore invest in updated security controls to win back the support and confidence of customers.

Al-Gahtani (2007:16) describes that research has shown that the business organizations benefit when there are investments in information security. The most important benefit of a secure information system is that the customers’ confidence in transacting online will increase so that they can embrace the technology. This will result in an increase in ecommerce activities and an increase in income for companies. The fiscal income of the country will also increase.

**OVERVIEW OF SHANNON & WEAVER MODEL**

The Shannon-Weaver Model (2007:34) proposes that all communication must include six elements:

![Communication model](image)

Shannon-Weaver (2007) states that these six elements are shown graphically in the model as Shannon was researching in the field of information theory; his model was initially very technology-oriented. The model was produced in 1949, a year after Lasswell’s and it will immediately see the similarity to the Lasswell Formula. The emphasis here is very much on the transmission and reception of information. This model is often referred to as an information model of communication. Apart from its obvious technological bias, a drawback from our point of view is the model’s obvious linearity. It looks at communication as a one-way process that is remedied by the addition of the feedback loop, which one can see in the developed version of
the mode; a further drawback with this kind of model is that the message is seen as relatively unproblematic.

**Source:** all human communication has some source. This could be some person or groups of persons with a given purpose who have a reason for engaging in communication. One will also find the terms *transmitter* and *communicator* used in place of source.

**Encoding:** when people communicate, they have a particular purpose in mind. As a source, they have to express the purpose in the form of a message. That message has to be formulated in some kind of code. How do the source’s purposes get translated into a code? This requires an encoder. The communication encoder is responsible for taking the ideas of the source and putting them in code, expressing the source’s purpose in the form of a message. It’s fairly easy to think in terms of source and encoder when one is talking on the. One is the source of the message and the ‘phone is the encoder which does the job of turning the one sound into electrical impulses’.

In person-to-person communication, the encoding process is performed by the motor skills of the source vocal mechanisms (lip and tongue movements, the vocal cords, the lungs, face muscles etc.), muscles in the hand and so on. Some people’s encoding systems are not as efficient as others. So, for example, a disabled person might not be able to control movement of their limbs and so find it difficult to encode the intended non-verbal messages or they may communicate unintended messages. A person who has suffered throat cancer may have had their vocal cords removed. They can encode their messages verbally using an artificial aid, but much of the non-verbal messages most of us send via pitch, intonation, volume and so on cannot be encoded.

Shannon was not particularly concerned with the communication of meanings. The inclusion of the encoding and decoding processes is very helpful to us since it draws our attention to the possibility of a mismatch between the operation of the encoding and decoding devices, which
can cause semantic noise to be set up. With good reason, the source of the message may wonder whether the picture in the receiver’s head will bear any resemblance to what’s in own.

**Message:** the message is what communication is all about. Whatever is communicated is the message. McQuail (2007:14) writes that the simplest way of regarding human communication is to consider it as the sending from one person to another of meaningful messages.

In reality, though, people can only reasonably examine the message within the context of all the other interlinked elements. Whenever they are in contact with other people, they are involved in sending and receiving messages. The crucial question for Communication Studies is to what extent does the message received correspond to the message transmitted? That’s where all the other factors in the communication process come into play. The Shannon-Weaver model and others like it tends to portray the message as a relatively uncomplicated matter. Note that this is not a criticism of Shannon since meanings were simply not his concern:

**Channel:** the words channel and medium are often used interchangeably, if slightly inaccurately. The channel is the conduit through which the message flows, for example, in normal face-to-face interpersonal communication, the atmosphere is the channel.

**Physical noise:** noise is generally considered to have been primarily concerned with physical (or mechanical or engineering) noise in the channel, i.e. unexplained variation in a communication channel or random error in the transmission of information. Everyday examples of physical noise are:

- Mist on the inside of the car windscreen
- Smudges on a printed page
- Snow on a TV set
However, it is possible for a message to be distorted by channel overload. Channel overload is not due to any noise source, but rather to the channel capacity being exceeded. People may come across that at a party where people are holding a conversation amidst lots of others going on around or, perhaps, in a Communication lesson where everyone has split into small groups for discussion or simulations. Shannon & Weaver were primarily involved with the investigation of technological communication. The base of the study is the effect of noise when the rural communities have a problem of accessing the information on internet. Noise is the unexplained distortion of a message when it is decoded.

**Decoder:** decoding refers to the process of unpacking the message. Decoding can be affected by personal beliefs, culture and attitudes. The decoder (receiver in Shannon’s paper) is an interesting and very useful development over, say, the Lasswell Formula.

**Receiver:** the receiver is the person who receives the message and decodes it. To put it in Shannon’s terms, information transmitters and receivers must be similar systems. If they are not, communication cannot occur.

**Feedback:** feedback is a vital part of communication. When a person is talking to someone over the phone, if they do not give the occasional ‘mmmm’, ‘aaah’, ‘yes, I see’ and so on, it can be very disconcerting. This lack of feedback explains why most people do not like to answer a phone. In face-to-face communication people get feedback in the visual channel as well as head nods, smiles, frowns, changes in posture and orientation, gaze and so on.

**Uses and Gratifications**

According to Hobson & Dorothy (2008:34) one of the influential tradition in the media research is referred to as uses and gratifications (occasionally needs and gratifications). This approach focuses on why people use particular media. Uses and Gratifications can be seen as part of a broader trend amongst media researchers which is more concerned with what people do with media, allowing for a variety of responses and interpretations. Gratifications could also be seen
as effects: e.g. thrillers are likely to generate very similar responses amongst most viewers. According to Blumler & Katz (2005:40-50) “Uses and Gratifications theory arose originally in the 1940s and underwent a revival in the 1970s and 1980s. The approach springs from a functionalist paradigm in the social sciences. It presents the use of media in terms of the gratification of social or psychological needs of the individual. The mass media compete with other sources of gratification, but gratifications can be obtained from a medium’s content (e.g. watching a specific programme), from familiarity with a genre within the medium (e.g. watching soap operas), from general exposure to the medium (e.g. watching TV), and from the social context in which it is used (e.g. watching TV with the family)”. McQuail (2007: 236) argue that Uses and Gratifications theory explains how people’s needs influence how they use and respond to a medium. It also has explains the influence of mood on media choice: boredom encourages the choice of exciting content and stress encourages a choice of relaxing content. The same TV programme may gratify different needs for different individuals. Different needs are associated with individual personalities, stages of maturation, backgrounds and social roles.

McQuail (2007: 73) offer the following typology of common reasons for media use:

**INFORMATION**

- finding out about relevant events and conditions in immediate surroundings, society and the world
- seeking advice on practical matters or opinion and decision choices
- satisfying curiosity and general interest
- learning; self-education
- gaining a sense of security through knowledge

**PERSONAL IDENTITY**

- finding reinforcement for personal values
- finding models of behaviour
- identifying with valued others (in the media)
- gaining insight into one’s self

**INTEGRATION AND SOCIAL INTERACTION**

- gaining insight into circumstances of others; social empathy
- identifying with others and gaining a sense of belonging
- finding a basis for conversation and social interaction
- having a substitute for real-life companionship
- helping to carry out social roles
- enabling one to connect with family, friends and society

**ENTERTAINMENT**

- escaping, or being diverted, from problems
- relaxing
- getting intrinsic cultural or aesthetic enjoyment
- emotional release
- sexual arousal

**CONCEPTUALIZING A MODEL FOR ONLINE SHOPPING WITHIN RURAL COMMUNITIES**

According to Davis (2010: 44) the Technology Acceptance Model will open up new markets that are not previously accessible. Investing in these technologies can lead to economic benefits through more price competition, lower inventory costs, reduced business travel and new distribution channels.
The Shannon-Weaver Model of communication clearly identifies the ‘noise’ which impairs acceptance of an intended message. The tendency for rural communities to resist use of new technology for ecommerce is an indication that the benefits of its adoption are obscure to them. This is the ‘noise’ which prevents coherent decoding of the message. The challenge is to assist rural communities to ‘buy-in’ to the idea of adopting ecommerce to their advantage. In Shannon and Weaver’s terminology, the main problem is to eliminate or minimize the ‘noise’ / interference in the message.

Interestingly, the Technology Acceptance Model indicated that in order to eliminate the ‘noise’, one has to understand the perceived usefulness and the perceived ease-of-use of ecommerce by rural communities. Further, the uses and gratification theory warrants that one examines the sense of gratification that rural communities would receive upon using ecommerce. Clarifying the usefulness of engaging in ecommerce would also influence rural communities to engage in ecommerce.

In summary (as indicated in the illustration below), in order to change the attitude of rural communities towards the use of ecommerce, one has to consider ways of eliminating the prejudices (‘noise’) which rural communities harbor against use of ecommerce. This can be done by considering the perceived usefulness and the perceived ease-of-use of ecommerce as well as the gratification which these communities would receive.
In this context, the Shannon and Weaver model of communication indicates that rural communities would decode the intended message favorably if:

1. The message is clearly constructed and
2. Misunderstandings (bias) to the message is removed

According to the ‘Technology Acceptance Model’ rural communities will adopt ecommerce if they perceive that it is:

1. Useful to them and if
2. It is easy to use

The ‘Uses and Gratification’ theory explains that:

1. People will adopt ecommerce if they find it useful to their life and
2. If it gives them some satisfaction

In keeping with the above theories of communication, concerned authorities such as the government, major industries and other social organizations need to focus on the following in order for rural communities to freely engage in online transactions:
• Educating rural communities on the usefulness of engaging in online shopping and online banking. Such education should include radio, newspaper and television adverts which depict how rural communities can overcome constraints of time and distance by using the internet for shopping and banking.

• Community television and radio must include soapies which depict rural communities engaging in online banking and shopping.

• The concept of safety of online banking and shopping must also be broadcast to rural communities in easy to understand terminology.

• The government and banking communities must identify the fears and superstitions which rural people harbor about financial transactions in general and direct more effort in assisting rural communities to alleviate these fears.

• It is important that the government and banking communities involve the rural leaders when educating rural communities about e-commerce and similar issues.

The above statements are merely suggestions (concepts) which are based on communication models and which may be used to improve communication. In this case we are examining possible solutions to improve online shopping / banking in rural areas so that there is a spiral effect of economic development in these areas. These suggestions have been used to structure a quantitative study to fully understand the problem which rural communities have with regards to online shopping / banking.

**CONCLUSION**

This chapter was based on Shannon & Weaver’s communication model to understand the problems which rural communities experience with regards to technology acceptance. An important issue of ‘noise’ or ‘disturbance’ was identified as a key to understand why communication to these communities has been unsuccessful. Uses and Gratification theory as well as the Technology Acceptance Model were used to understand and eliminate the ‘noise’ or interference to the message sent to rural communities. Theoretically, this provided a solution (conceptual model) to the problem. However, this model cannot be used as the cardinal
underpinning solution to promote e-commerce in rural settlements. The problem needs to be further subjected to an ‘in the field investigation’ and scrutinized using quantitative surveys. This is what follows in the subsequent chapters of this thesis.
Chapter 8

RESEARCH METHODOLOGY

INTRODUCTION
A conceptual framework for promoting the use of online shopping and banking was examined in the previous chapter. This chapter examines the research techniques which are used in this study. Various aspects which relate to specific methods of research are investigated to ensure which technique would be best suited for this research study. Snapshots of the coding process are provided to indicate how the data was captured. The empirical investigation focuses on the perception of rural communities on the safety of e-commerce transactions in the e-Nkandla rural community in KwaZulu-Natal. The findings provide detailed information on the subject of discussion. The rationale for the questionnaire design, evaluation of results, analysis and data processing is also outlined.

RESEARCH DESIGN
Heppner et al. (2006:15) describe a research design as “a plan or structure for an investigation or a list of specifications and procedure for conducting and controlling a research project”. In other words it can be described as a master plan which indicates the strategies for conducting a research. A research design serves as a master plan of the methods and procedures that should be used to collect and analyze data needed by the decision maker. The research design is a deliberately planned arrangement of conditions for the analysis and collection of data in a manner that aims to combine relevance to research purpose with the economy procedure.

Goddard & Melville (2001:8-10) state that there are many types of research design. However the following types are used in this study:

Qualitative research methods: Qualitative research methods are used in the form of open-ended-questions within a self-administered questionnaire. This allowed the respondents to motivate their answers for certain questions in their own words.
**Quantitative research methods:** Quantitative research methods are used in the form of closed-ended questions within a questionnaire. These are easy to quantify and analyse due to a restricted number of answers and categories provided to respondents.

**Descriptive research:** Descriptive research or case study research is research in which a specific situation is studied either to see if it gives rise to any general theories, or to see if existing general theories are borne out by the specific situation. Descriptive research may be used when the object of the research is very complex.

**Historical research:** Historical research concerns the studies of the past to find cause-effects patterns. This research does not directly study current causes or effects. Data is gathered from primary sources and secondary sources.

While this study primarily focused on qualitative and quantitative research methods, some aspects of the study delved in descriptive and historical work.

**Differences between Qualitative and Quantitative research methods**

Debus (2005:34) states that there are two basic types of research you might conduct with intended audiences: qualitative and quantitative. You will use methods from one of these two types depending upon what you want to learn. The table below provides an overview of the differences between Qualitative and Quantitative research methods.

<table>
<thead>
<tr>
<th>Qualitative</th>
<th>Quantitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides depth of understanding</td>
<td>Measures level of occurrence</td>
</tr>
<tr>
<td>Asks &quot;Why?&quot;</td>
<td>Asks &quot;How many?&quot; and &quot;How often?&quot;</td>
</tr>
<tr>
<td>Studies motivations</td>
<td>Studies actions</td>
</tr>
<tr>
<td>Is subjective; probes individual reactions to discover underlying motivations</td>
<td>Is objective; asks questions without revealing a point of view</td>
</tr>
<tr>
<td>Enables discovery</td>
<td>Provides proof</td>
</tr>
<tr>
<td>Is exploratory</td>
<td>Is definitive</td>
</tr>
<tr>
<td>Allows insights into behaviour and trends</td>
<td>Measures levels of actions and trends</td>
</tr>
<tr>
<td>Interprets</td>
<td>Describes</td>
</tr>
</tbody>
</table>

**Reference:** Debus(2005)
Qualitative Research

Krueger (2007:30) outlines the advantages of qualitative research methods which include:

- Qualitative designs are more flexible than quantitative designs.
- Qualitative themes and categories can be developed as methods to explore and describe meanings in particular contexts.

Byrne (2002:22) states that it is hard to replicate qualitative research as it does not have structured design or a standardized procedure.

Quantitative research

According to Debus (2005:40) Quantitative design is appropriate when there is a need to count and or measure variables. According to Creswell (2005:30) & Tracy (2007:41) quantitative research methods are verification based and are important to verify the insight and measure what number of people holds certain attitudes and behaviors. Creswell (2004:31) & Tracy (2002: 82) also state that Quantitative methods and techniques used to collect data include survey, self-administered questionnaire and experimental designs.

Creswell (2004:31) & Tracy (2002: 82) continue to mention the advantages of quantitative research:

- The research method is easy to imitate and consequently has high reliability.
- Results can be reduced to a few numerical statistics and interpreted easily.

Disadvantage of Quantitative methods include:

- According to Krueger (2007:21) Quantitative research restricts itself to data experiences and rejects any speculation.
- Krueger (2007:40) states that knowledge is based on rationally and this approach denies other methods of acquiring knowledge.
Definition of surveys

According to Fink & Arlene (2005:33) “the survey research is the method of gathering data from respondents thought to be representative of some population, using an instrument composed of closed structure or open-ended items (questions)”. Behling et al. (2000:57), Fink & Arlene, (2005:299) define Mail and Self-administered Questionnaires as types of surveys. The researcher used self-administered questionnaires.

Self-administered questionnaires

According to Fink & Arlene (2005:99) “researchers can give questionnaires directly to respondents or mail them to respondents who read instructions and questions, and then record their answers”. The combination of both closed-ended and open-ended questions ensured that the researcher gained the exact information that was intended. The self-administered questionnaire was distributed by hand in a hard copy by the researcher and her assistant. It was ensured that the particulars of the respondents remained anonymous and due to the trust they would be more inclined to answer the question.

Fink & Arlene (2005:108) list the advantages of self-administered questionnaires are:

- Confidentiality of respondents is maintained

- Anyone within the organization can receive a questionnaire unlike electronic questionnaires when respondents are limited to those with computers and electronic mail.

Disadvantages of self-administered questionnaires are:

- The researcher is not physically present so respondents cannot ask questions or clarity things that they do not understand concerning the questionnaire.

- Illiterate respondents are excluded from answering the self-administered questionnaire.

The above mentioned advantages and disadvantages could pose difficulties as well as enhance the study to be conducted. The researcher and her assistant handed out the questionnaires which aided in ensuring confidentiality of respondents.
THE TARGET POPULATION

According to Du Plooy (2012:101) “the target population is the actual population to which we want to generalize findings”. The target populations in this study are the rural communities of eNkandla.

Du Plooy (2012:100) states “sampling involves a rigorous procedure when selecting units of analysis from a larger population. Further, population is all possible units of analysis and can be seen as any group of individuals”.

According to Bless & Higson-Smith (2006:84) “the entire set of objects or people which is the focus of the research and about which the researcher wants to determine some characteristics is called population”. Bless & Higson-Smith (2006:84) also state that the subset of the whole population which is actually investigated by the researcher and whose characteristics will be generalized to the entire population is called sample. Goddard & Melville (2001:34) define population as any group that is subject of research interest.

ADVANTAGES OF SAMPLING

- Gathering data on a sample is time consuming
- Gathering data on a sample is less costly since the costs of research are proportional to the numbers of hours spent on data collection.
- Sampling may be the only practical method of data collection.
- Sampling is a practical way of collecting data when the population is infinite or extremely large, thus making a study of all its elements impossible.

SAMPLING METHOD

According to Goddard & Melville (2001:1) random selection is the basic principle used to try to avoid bias in a sample. The advantage of random sampling ensures that each member of the population has as much chance as any other of being included in it. Bless & Higson-Smith (2006:86) note that probability or random sampling occurs when the probability of including
each element of the population can be determined. The researcher can estimate the accuracy of the generalization from sample to population. Bless & Higson-Smith (2006:86), continue to say that the non-probability sampling refers to the case where the probability of including each element of the population in a sample is unknown. It is not possible to determine the likelihood of the inclusion of all the representative elements of the population into the sample. Random sampling was used for this study. Bless & Higson-Smith (2006:87) explains that simple random sampling is a sampling procedure which provides equal opportunity of selection for each element in a population. More than seven hundred questionnaires were distributed to small to medium rural communities in eNkandla KZN. The researcher began collecting questionnaires and discarding spoilt copies upon collection; when four hundred good copies were collected, the researcher stopped collecting questionnaires. According to Du Plooy (2012:104), 381 respondents would constitute a representative sample of a district such as eNkandla.

**Short history of the target population district (eNkandla)**

ENkandla is comprised of large rural areas, with about 98% of the land belonging to Ingonyama Trust. There are 18 amakhosi (kings) in the area. ENkandla town is the primary development node. The secondary nodes are: Dolwana, Qhudeni, Jameson’s Drift, Khomo, Fort Louis and Chwezi. Developments are afoot to link them with Nkandla and with each other via new roads and bridges. According to Du Plooy (2012), eNkandla is derived from the verb ‘khandla’ meaning ‘to tire, exhaust or prostrate.’ Shaka went to resolve a dispute in the area and upon reaching his destination, claimed he was exhausted. eNkandla Municipality is one of six local municipalities within the uThungulu District Municipality, in north-eastern KwaZulu-Natal. The primary administrative center is eNkandla, approximately 280 km north of Durban. The town is strategically located at the intersection of four important transport routes: south to Kranskop and Pietermaritzburg, west to Vryheid, north to Ulundi and eastwards to Eshowe, uMhlathuze and the coast. The area has a wealth of undisturbed forests which boast many indigenous species; eNkandla has a claim to be the ‘cradle’ of Zulu history. From Malandela to Shaka, to
Dingane and Cetshwayo, eNkandla has been at the centre stage of the Zulu nation’s history. The graves of King Malandela and Cetshwayo are at eNkandla.

### Population of eNkandla (Kwa-Zulu Natal)

<table>
<thead>
<tr>
<th>Place</th>
<th>Code</th>
<th>Area (km²)</th>
<th>Population</th>
</tr>
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<tbody>
<tr>
<td>Chube</td>
<td>54201</td>
<td>31.60</td>
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<tr>
<td>Chwezi</td>
<td>54202</td>
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<tr>
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<td>54203</td>
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<td>Emangidini</td>
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<td>5,171</td>
</tr>
</tbody>
</table>

References: Du Plooy (2012)

According to Du Plooy (2012) statistics in South Africa (SA) do not reflect the true picture of the eNkandla Municipality. It is a difficult and challenging task in eNkandla to undertake
planning in the absence of reliable data. Different sources come with different figures. Even Statistics SA acknowledges the error margins (95% confidence limits) in terms of its figures.

**DATA COLLECTION**

Data collection instruments are tools used to collect data about a program or program component. If the data already exists, it is a matter of going to the appropriate place or person and asking for it. If the data you want does not exist, you need to collect it. There are a few general ways to collect data. You can either observe what happens (using any of your senses to collect data), you can ask other people, or you can review documents. Getting data from other people involves either a questionnaire or some kind of an interview. You are asking people either to write down their responses or to tell you their responses so you can record them.

**QUESTIONNAIRES**

Self-administered questionnaires were used in this study. According to Goddard & Melville (2001:47) define a questionnaire as a printed list of questions that respondents are asked to answer, they note that questionnaires are commonly used and commonly abused. Also observe that, it is easy to compile a questionnaire but it is not easy to compile an effective one. According to Goddard & Melville (2001:48) questionnaires can be categorized into open or unstructured and closed or structured questions. Goddard & Melville (2001:48) further explain that open (or unstructured) questions can be used in a preliminary survey or to get a feel for a subject while closed or structured questions are used in large-scale data collection.

The questionnaire for this study primarily used closed-ended questions. Du Plooy (2012:138) states that closed-ended questions contain an established number of answers from which the respondent is required to select one. A closed-ended question was used to allow respondents to answer the question by selection.

According to Fink & Arlene (2005:109) the following are some advantages of close-ended questions:
 Ease of decoding information as answers are limited to certain categories

 These answers are quick and easy for respondents to answer and will consequently be more desirable to answer within a work context where time is limited.

 Behling et al. (2000:286) also state provides advantages of close-ended questions:

 Answerers are easy to code and statistically analyze. Respondents are more likely to answer about sensitive topics.

 There are few irrelevant or confused answers to question.

 Less articulate or literate respondents are not at disadvantage.

 Du Plooy (2012:139) highlights some disadvantages of closed-ended questions:

 The respondents must be familiar with the language and terms used

 As categories are provided for answers, possible answers to questions are limited.

 They can suggest ideas that the respondent would not otherwise have.

 Respondents with no opinion or knowledge may answer anyway.

 Respondents can be frustrated because their desired answer is not a choice.

 Misinterpretation of a question may go unnoticed.

 Distinction between respondents’ answers may be blurred (unclear)

 Clerical mistakes or marking the wrong response is possible.

 They force respondents to give simplistic responses to complex issues

 They force people to make choices they would not make in the real world.

 **FIELDWORK**

 The researcher lives in the heart of the rural district of eNkandla. This survey was conducted by distribution of questionnaires to the respondents at their home, social gathering and work place. The researcher began collecting questionnaires and discarding spoilt copies upon collection;
when four hundred good copies were collected, the researcher stopped collecting questionnaires. According to Du Plooy (2012:104), 381 respondents would constitute a representative sample of a district such as eNkandla. The empirical investigation focuses on perceptions of rural communities on the safety of e-commerce transactions.

The finding in the literature review provided detailed information on the subject of identifying how the rural communities can be encouraged to take the advantage of the using internet banking and online shopping so that rural communities can be part of the global community. The focus of research was explained to the respondents to ensure them that this was totally a voluntary process and that they were not obligated to participate. The respondents were ensured that this survey was an anonymous survey and their responses would be confidential. The respondents were required to place a tick or cross, using a black pen, in the relevant block in each question. The methods of data collection, qualitative, quantitative, stratified random sampling and reliability of the research study, is outlined together with the rationale of the questionnaire design, evaluation of results, analysis and data processing.

**RATIONAL BEHIND THE QUESTIONNAIRE**

The questionnaire was developed in conjunction with the study leader. Firstly, the researcher formulated the topic and the type of questions to be compiled, thereafter developed ranges of questions that focused on perceptions of rural communities on the safety of e-commerce transactions.

**TITLE OF THE QUESTIONNAIRE**

The title aims to highlight the study on the evaluation of perceptions of rural communities on the safety of e-Commerce transactions. This study focuses in to promoting the awareness of online banking and shopping in rural communities because there is a need to develop a technology acceptance model for rural communities so that they could benefit from the advantages of internet transactions. The model will need to address fears which rural people harbor about technology and finance.
INSTRUCTION AND PERMISSION SECTION

Respondents were assured in Section A and B that their personal data would remain private and confidential. The information would be used as proof that permission was granted by them to use their responses to contribute towards the research being conducted:

The researcher reaffirmed the appreciation of their assistance for completing the questionnaire. Section A: deals with requesting permission from respondent to use their responses anonymously. Section B: deals with information relating to internet banking, online shopping and internet safety.

OUTLINE OF THE QUESTIONNAIRE

Questions 1 to 3
These questions deal with the respondent’s personal information.

Question 4-7
These questions ask the respondents whether they have access to a computer, and whether they are computer literate.

Question 8-11
These questions are about the respondents’ general perceptions about the computer and its uses.

Question 12-37
These questions seek to establish whether the respondents have access to the internet and what they use it for.

Question 38-51
These questions interrogate the respondents’ general perceptions about the safety of using the internet.

Question 52-61
These questions are about the respondents’ preferred use of the internet.

Question 62-65
These questions are meant to summarize the respondents’ perceptions about the use of the internet.

**PRE-TESTING**

Malhotra (2006:341) states that pre-testing refers to testing the questionnaire on a small scale of respondents to identify and eliminate potential problems. Even the best questionnaire can be improved by pre-testing. Rampersad (2007:148) explains that all aspects of the questionnaire should be tested, including question content, wording, sequencing, form and layout.

The researcher presented the questionnaire to two colleagues to ascertain a constructive critique with a view to ensure relevance of the questionnaire.

**ANALYSIS OF DATA**

There are many statistical techniques and software programmes available. The researcher used MoonStats© for Windows to analyze the data in this study. Once the questionnaires were completed, the researcher commenced with the encoding process. An explain of how to set up the encoding parameters in MoonStats© is provided later. Verification procedures and how to create tables and graphs are also explained.

**A QUICK OVERVIEW OF MOONSTATS©**

MoonStats© was designed to make the process of data entry and data analysis on computer as simple as possible. When MoonStats© starts, the following figure is visible:

![MoonStats© start-up window](image)

To open a data set, one merely clicks on “open data set” tab and the following figure appears:
Thereafter the data sheet window is displayed. Refer to figure 10 below.

Example of open data set

Data was entered and/or edited using the Data sheet, which is programmed to handle large data sets. A Data sheet is also called a data matrix or a spreadsheet. The following snapshot shows that a Data sheet consists of columns (running vertically from top to bottom) and rows (running horizontally from left to right).

**ENTERING DATA INTO THE MoonStats© DATA SHEET**

Data was entered and/or edited using the Data sheet, which is programmed to handle large data sets. A Data sheet is also called a data matrix or a spreadsheet. The following snapshot shows that a Data sheet consists of columns (running vertically from top to bottom) and rows (running horizontally from left to right).
**Detailed Data Sheet**

Each column is occupied by a variable (in this instance the variables are: ‘case’, ‘num’, ‘age’, ‘gender’, ‘test core’ that relates to an item or question in the data collection instrument (questionnaire or interview etc.) that was used to collect the data. Each row is occupied by a case or unit of analysis, also called an observation, respondent, subject, individual, or element. A case can be a person, a household, a school, etc., depending on the research.

**Opening a data set in the Data sheet**

The researcher used the option “Open a data set” or to ”Create a data set” gain access to data. MoonStats® data files contain only numerical values. Convert any alphabetic values (a, b, c, etc.) to numeric (1, 2, 3, etc.) prior to data entry and analysis.

**Creating a new data set in the Data sheet**

"Create a data set" option is used to create a new data set. MoonStats® allows a maximum of 10 characters for a variable name. One has to use representative variable names that are a description of the question or item, as the variable names appear in the output tables and graphs.
ENTERING DATA

Data entry is done by clicking on the first empty cell (case 1, variable 1) and typing in numeric data. MoonStats© saves each data entry, while the researcher busy entering the data.

ANALYSING DATA

To perform statistical analyses go to the Univariate Analysis window (click on the Univariate window tab). Select one or more variables and then click on the various statistics. Although MoonStats© 2 can be utilised to create graph and table as well, the researcher used Microsoft word 2007 to generate graph and table.

The researcher used pie charts, bar graphs and tables as illustrated below and copied it to the Microsoft Word document.

CONCLUSION

In this chapter, the composite research procedure for this study was discussed. A brief explanation on the use of MoonStats© for data processing was given. A short description of the target population was also provided. The following chapter is used to present and interpret data.
Introduction

The previous chapter provided an overview of the research procedures as well as a brief explanation of the use of MoonStats© for data analysis.

In this chapter will present the findings from the perspective of the respondents that participated in this research. According to Bless & Higson-Smith (2006:137) once data collection and checking has been completed, the researcher should begin the processing of analysis the data. Bryman (2002:192) defines data analysis as the study of tabulated materials in order to determine inherent fact or meanings. Bless & Higson-Smith (2006:137) notes that analysis is conducted so that the researcher can detect consistent patterns within the data such as the consistent. Bryman (2002:192) also adds that data analysis should be done in such a way that the results and interpretation thereof respond to the aim and objectives of the study.

The aim of this study was to promote the awareness of online banking and shopping in rural communities of e-Nkandla Kwa-Zulu-Natal. The data was captured and analyzed using MoonStats©.

Analysis of Data

Figure 13 (below) displays the distribution of the respondents’ age.

![Distribution of respondents according to age](image-url)
A large number of respondents (199) were below the age of twenty. This represented almost 49.75% of the total sample. One hundred and four respondents were between 21 and 30 years old. This represents 26% of the sample population. As indicated in the graph above (figure 14), the remaining age groups were less than 12% each.

Figure 14 (below) displays the distribution of the respondents’ gender.

14. The distribution of respondents according to their gender

More than forty seven percent (189) of the sample population were males. Almost the same percentage (52.75%) of females participated in the study. This question was aimed at determining whether there was any correlation between gender and internet acceptance.

Figure 15 (below) shows the distribution of respondents according their ethnic group.

15. The distribution of respondents according their ethnic group.
African respondents formed the vast majority of the sample. eNkandla population is predominantly Black; however, there is a sparse distribution of Indians, Whites and Coloreds.

Figure 16 (below) indicates that slightly more than 50% of the sample populations have access to a computer.

Almost thirty seven percent (37%) of the respondents were certain that they do not have access to a computer.

Figure 17 (below) indicates what percentages of people have access to the internet.

Thirty nine percent (39%) of the respondents stated that they have access to internet.
Table 3 (below) indicates whether the respondents can work well on a computer.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>204</td>
<td>51.00</td>
</tr>
<tr>
<td>No</td>
<td>143</td>
<td>35.75</td>
</tr>
<tr>
<td>I can't answer</td>
<td>53</td>
<td>13.25</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

More than fifty percent of the respondents indicated that they are proficient with using the computer. This is in keeping with their response in the question which asked whether they had access to a computer.

Figure 18 (below) indicates that 34.75% of the total sample stated that they are good at working on the internet.

A large portion of the respondents could not use the Internet. However, a similar percentage of respondents indicated that they have access to the Internet. Note that only 13.9% of the South African population actually uses the Internet (Miniwatts Marketing Group, 2012).

The figure 19 (below) indicates that almost 90% of the respondents felt that the computer is a very important tool.
19. Respondents who indicate that the computer is a very important tool.

There is a good indication that most people have a positive outlook about computer technology. However, it is important to note that there is a sizeable amount of people who are skeptical about computer usage.

Table 4 (below) shows the response to the question: “Does every family need a computer?”.  

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>279</td>
<td>69.75</td>
</tr>
<tr>
<td>No</td>
<td>69</td>
<td>17.25</td>
</tr>
<tr>
<td>I can’t answer</td>
<td>52</td>
<td>13.00</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

4. EVERY FAMILY NEEDS TO HAVE A COMPUTER

A large percentage of respondents (69.75%) affirmed that it is important for families to have their own computer.

The figure 20 (below) shows the response to the question: “Does every family need access to the internet?”.  

400
20. Every family needs to have access to the internet

A large percentage of respondents (60.5%) indicated that all families need internet access. A substantial number of respondents indicated that the internet was not a necessity in homes.

The figure 21 (below) indicates the response to the question: "the computer is as important as the telephone?"

21. The computer is as important as the telephone

A large number of respondents (73%) indicated that the computer is important as the telephone. The rest of the people have said computer in not important as telephone and others was not sure whether the computer is important as the telephone.

Table 5 (below) shows the response to the question: "I use the internet to do banking?"
A large percentage of respondents (51.75%) they are not using internet to do banking.

The figure 22 (below) shows a response to the question: “I use the internet to buy clothes?”

A large number of respondents (62.75%) indicated that they do not use the internet to buy clothes.

The figure 23 (below) displays a response to the question: “I use the internet to buy groceries?”
23. I use the internet to buy groceries

A large number of respondents (63%) indicated that they are not use internet to buy groceries.

The figure 24 (below) indicates a response to the question: “I use the internet to buy tickets and toys?”.

24. I use the internet to buy tickets and toys

A large number of respondents (61.65%) indicated that they are not using the internet to buy tickets and toys.
Table 6 (below) shows a response to the question: “I use the internet to buy books?”. 

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>185</td>
<td>46.25</td>
</tr>
<tr>
<td>No</td>
<td>193</td>
<td>48.25</td>
</tr>
<tr>
<td>I can’t answer</td>
<td>22</td>
<td>5.50</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

A large number of respondents (46.25%) indicated that they use the internet to buy books.

The figure 25 (below) indicates a response to the question: “I use the internet to buy play games?”. 

A large number of respondents (55.75%) indicated that they use the internet to buy play games.

The figure 26 (below) indicate a response to the question: “I use the internet chat with friends?”. 

25. I use the internet to buy play games
A large number of respondents (55.75%) indicated that they use the internet to buy play games.

26. I use the internet chat with friends
A large number of respondents (61.75%) indicated that they use the internet to chat with their friends. A substantial number of respondents indicated that they are not use the internet to chat with their friends.

The figure 27 (below) indicates a response to the question: “I use the internet to download movies and music?”

A large number of respondents (63.5%) indicated that they use the internet to download movies and music.

The figure 28 (below) shows a response to the question: “I use the internet to find friends?”
A large number of respondents (55.25%) indicated that they use the internet to find friends.

Table 7 (below) indicates a response to the question: “I use the internet to send and receive e-mail messages?”.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>248</td>
<td>62.00</td>
</tr>
<tr>
<td>No</td>
<td>131</td>
<td>32.75</td>
</tr>
<tr>
<td>I can’t answer</td>
<td>21</td>
<td>5.25</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

A large number of respondents (62%) indicated that they use the internet to send and receive e-mail messages.

The figure 29 (below) shows a response to the question: “I use the internet to apply for consumer loans or credit cards online?”.

A number of respondents (46%) indicated that they are not using the internet to apply for consumer loans or credit cards online and the number of respondents (45%) indicated that they are using the internet to apply for consumer loans or credit cards online.

The figure 30 (below) shows a response to the question: “I use the internet to do inter-account transfers?”. 
30. I use internet to do inter-account transfers

A large number of respondents (45.75%) indicated that they use the internet to do inter-account transfers.

The figure 31 (below) indicates a response to the question: “I use a computer?”.

31. I use a computer

A large number of respondents (44.25%) indicated that they always use the computer. A substantial number of respondents are not using the computer.

The figure 32 (below) shows a response to the question: “I use the internet?”.
A large number of respondents (38.5%) indicated that they never use the internet.

The figure 33 (below) indicates a response to the question: “I use the internet to do banking?”. A large number of respondents (45%) indicated that they never use the internet to do banking.

The figure 34 (below) indicates a response to the question: “I use the internet to buy clothes”.
34. I use the internet to buy clothes

A large number of respondents (62.5%) indicated that they are not always use the internet to buy clothes.

The figure 35 (below) shows a response to the question: “I use the internet to buy groceries?”. 

35. I use the internet to buy groceries

A large number of respondents (54.39%) indicated that they never use the internet to buy groceries.
Table 8 (below) indicates a response to the question: “I use the internet to buy tickets and toys?”. 

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very often</td>
<td>100</td>
</tr>
<tr>
<td>Seldom</td>
<td>72</td>
</tr>
<tr>
<td>Never</td>
<td>203</td>
</tr>
<tr>
<td>I can't answer</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
</tr>
</tbody>
</table>

A large number of respondents (50.75%) indicated that they never use the internet to buy ticket and toys.

The figure 36 (below) indicates a response to the question: “I use the internet to buy books?”. 

A large number of respondents (48%) indicated that they are not always use the internet to buy books.

The figure 37 (below) shows a response to the question: “I use the internet to buy play games?”. 

8. I use the internet to buy tickets and toys

36. I use the internet to buy books

37. I use the internet to buy play games
37. I use the internet to buy play games

A large number of respondents (55.5%) indicated that they always use the internet to buy play games.

The figure 38 (below) shows a response to the question: “I use the internet chat to friends?”

38. I use the internet chat to friends

A large number of respondents (45.25%) indicated that they always use the internet.
The figure below 39 (below) indicates a response to the question: “I use the internet to download movies and music?”

39. I use the internet to download movies & music

A large number of respondents (47.25%) indicated that they always use the internet to download movies and music.

The figure 40 (below) indicates a response to the question: “I use the internet find friends?”

40. I use the internet find friends

A large number of respondents (40.25%) indicated that they always use the internet to find their friends.
The figure 41 (below) indicates a response to the question: “I use the internet to do research?”.

A large number of respondents (47.75%) indicated that they always use the internet to do research.

The figure (42) below indicates a response to the question: “I use the internet to gamble online?”.

A large number of respondents (45.25%) indicated that they never use the internet to gamble online.

The figure 43 (below) indicates a response to the question: “I use the internet to check news and weather?”. 
43. I use the internet to check news and weather.

A large number of respondents (41.5%) indicated that they always use the internet to check news and weather.

The figure 44 (below) indicates shows a response to the question: “internet banking is safe”:

44. Internet banking is safe

A large number of respondents (52.5%) indicated they agree that the internet is safe.

The figure 45 (below) shows a response to the question: “internet banking is reliable?”.
45. Internet banking is reliable (It does not give many problems)

A large number of respondents (39.75%) indicated they agree that the internet is reliable.

The figure 46 (below) shows a response to the question: “internet banking is more convenient than ordinary banking?”.

46. Internet banking is more convenient than ordinary banking

A large number of respondents (44.25%) indicated they agree that the internet is more convenient than ordinary banking.
The figure 47 (below) indicates a response to the question: “passwords are well protected on the internet?”.

47. Passwords are well protected on the internet
A large number of respondents (56%) indicated they agree that passwords are well protected on the internet.

The figure 48 (below) shows a response to the question: “internet banking is very affordable?”.

48. Internet banking is very affordable
A large number of respondents (40.5%) indicated they are not sure that the internet is very affordable.
Table 9 (below) indicates a response to the question: “internet banking is easy to understand?”. 

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>189</td>
<td>47.25</td>
</tr>
<tr>
<td>Disagree</td>
<td>62</td>
<td>15.50</td>
</tr>
<tr>
<td>Not sure</td>
<td>149</td>
<td>37.25</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

A large number of respondents (47.25%) indicated they agree that the internet is easy to understand.

The figure 49 (below) indicates a response to the question: “internet banking is easy to use?”. 

A large number of respondents (43.61%) indicated they agree that the internet is easy to use.

Figure 50 (below) indicate a response to the question: “All personal details which are used to perform internet banking are safe?”. 

“All personal details which are used to perform internet banking are safe?”. 

119
A large number of respondents (48%) indicated they agree that all personal details which are used to perform internet banking are safe.

Table 10 (below) indicates a response to the question: “All personal details which are used to perform internet banking are safe?”

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>178</td>
<td>44.61</td>
</tr>
<tr>
<td>Disagree</td>
<td>73</td>
<td>18.30</td>
</tr>
<tr>
<td>Not sure</td>
<td>148</td>
<td>37.09</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

A large number of respondents (44.61%) indicated they agree that the internet banking ensures their personal details are always kept safe.

The figure 51 (below) indicates a response to the question: “I prefer Internet banking over physical (normal) banking?”.
51. I prefer Internet banking over physical (normal) banking

A large number of respondents (41.1%) indicated that they prefer Internet banking over physical (normal) banking.

The figure 52 (below) shows a response to the question: “Internet access is easily available?”

52. Internet access (from a service provider) is easily available

A large number of respondents (38.75%) indicated that they agree the internet access is easily available and the large number of respondents (38.75%) indicated they are not sure that the internet access is easily available.
Table 11 (below) shows a response to the question: “Internet access is affordable to everyone?”. 

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>168</td>
<td>42.00</td>
</tr>
<tr>
<td>Disagree</td>
<td>102</td>
<td>25.50</td>
</tr>
<tr>
<td>Not sure</td>
<td>130</td>
<td>32.50</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

A large number of respondents (42%) indicated they agree that the internet access is affordable to everyone.

The figure 53 (below) shows a response to the question: “I feel very secure when doing online shopping?”. 

A large number of respondents (38%) indicated that they feel very secure when doing online shopping.

The figure 54 (below) indicates a response to the question: “Online buying is more easily accessible?”. 

A large number of respondents (42%) indicated they agree that the online buying is more easily accessible than physical shopping.

Table 12 (below) indicates a response to the question: “I would like to use the Internet to check get online statements?”

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>269</td>
<td>67.25</td>
</tr>
<tr>
<td>No</td>
<td>85</td>
<td>21.25</td>
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<tr>
<td>Not sure</td>
<td>46</td>
<td>11.5</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

A large number of respondents (67.25%) indicated that they would like to use the internet to check get online statements.

The figure 55 (below) indicates a response to the question: “I would like to use the Internet to pay my bills online?”.
55. I would like to use the internet to pay my bills online

A large number of respondents (52.75%) indicated that they would like to use the internet to pay their bills throughout online.

The figure 56 (below) indicates a response to the question: “I would like to use the Internet for general banking?”.

56. I would like to use the internet for general banking

A large number of respondents (55.25%) indicated that they would like to use the internet for general banking.
The figure 57 (below) shows a response to the question: “I would like to use the Internet to calculate my loan payment?”.

A large number of respondents (60%) indicated that they would like to use the internet to calculate their loan payment.

Table 13 (below) shows a response to the question: “I would like to use the Internet to look for products and compare prices?”.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>248</td>
<td>62.00</td>
</tr>
<tr>
<td>No</td>
<td>91</td>
<td>22.75</td>
</tr>
<tr>
<td>Not sure</td>
<td>61</td>
<td>15.25</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

A large number of respondents (62%) indicated that they would like to use the internet to look for products and compare prices.

The figure 58 (below) shows a response to the question: “I would like to use the Internet to check balances on-line and apply for consumer loans?”.
58. I would like to use the internet to check balances on-line and apply for consumer loans

A large number of respondents (55.75%) indicated that they would like to use the internet to check balances on-line and apply for consumer loans.

The figure 59 (below) indicates a response to the question: “I would like to use the Internet to download loan applications?”.

59. I would like to use the internet to download loan applications

A large number of respondents (58.5%) indicated that they would like to use the internet to download loan applications.

Table 14 (below) shows a response to the question: “I would like to use the Internet to download personal banking information?”.
A large number of respondents (57.50%) indicated that they would like to use the internet to download personal banking information.

The figure 60 (below) indicates a response to the question: “It is safer to do online banking from your personal computer rather than the one at work?”

A large number of respondents (52%) indicated that they it is safer to do online banking from their personal computer rather than the one at work.

The figure 61 (below) indicates a response to the question: “It is safer to do online banking from your personal computer rather than a public computer?”
61. It is safer to do online banking from your personal computer rather than a public computer

A large number of respondents (51%) indicated that they it is safer to do online banking from their personal computer rather than a public computer.

The figure 62 (below) indicates a response to the question: “I will never use internet banking because is cannot be safe?”.

62. I will never use internet banking because is cannot be safe

A large number of respondents (46.5%) indicated that they will use internet banking because it can be safe.
The figure 63 (below) shows a response to the question: "I would like to use internet banking if someone can show me how use it".

![Bar chart showing responses to the question: "I would like to use internet banking if someone can show me how use it".]

63. I would like to use internet banking if someone can show me how use it

A large number of respondents (64.5%) indicated that they would like to use the internet banking if there is someone can show them how use it.

Table 15 (below) indicates a response to the question: "If the internet safety is improved, then I will use it to do banking?".

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>237</td>
<td>59.25</td>
</tr>
<tr>
<td>False</td>
<td>83</td>
<td>20.75</td>
</tr>
<tr>
<td>Not sure</td>
<td>80</td>
<td>20.00</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

15. If the internet safety is improved, then I will use it to do banking

A large number of respondents (59.25%) indicated that they will do the internet banking if the safety is improved.

The figure 64 (below) shows a response to the question: "Internet banking is too difficult for me to use?".
A large number of respondents (37.75%) indicated that the internet banking is too difficult for them to use.

**CONCLUSION**

The purpose of this chapter was to present the analysis and interpret the data that were collected. Data has been presented graphically by using bar charts, pie charts and tables. MoonStats was used to analyze data and then copied into Microsoft word, which was used in typing this dissertation. The following chapter deals with recommendations and concludes the study.
Chapter 10

CONCLUSION AND RECOMMENDATIONS

INTRODUCTION

The previous chapter provided the analysis of the research conducted. In this final chapter the conclusion and recommendations are presented in regards to the study conducted on the perceptions of rural communities on the safety of e-commerce transactions.

Rural communities in South Africa are lagging behind with the use of technology such as online banking and online shopping. According to Rahman & Westley (2010:50) rural people in South Africa are generally not highly educated and there is an obvious gap in their understanding of business models and information technology and their potential benefits to the community. People with access to Information Communication Technology services increase their ability to generate income and are enabled to help empower other rural people.

COMPREHENSIVE ANALYSIS OF RESPONSES

An analysis of the responses in chapter nine conveys the following awareness of rural peoples’ perception of electronic banking:

1. An average of half of the rural community has access to a computer and most of the people view it as an important aspect of life. Even those who do not own a computer indicate that the computer is important. This could probably mean that many people in the rural villages would like to own a computer but cannot afford to do so.

2. Although most of the rural people value the importance of a computer, very few use it for online shopping. They play games with the computer, download music and use it for social networking.
3. An important realization is that many people were using the computer to play online games. This poses the question: Why is there a discrepancy between online gaming and online shopping?

4. There has been a substantial fear for safety of online information. Also many people expressed the view that internet access was not easy to get.

5. Many people indicated that they would like to transact online if it was safe to do so.

6. A substantial group of people (about 30%) indicated that they would never trust online banking services.

7. It was difficult for people to express any religious or traditional prejudices for not engaging in online banking.

RECOMMENDATIONS

• It is important for rural communities to identify the fears and superstitions that rural people have about financial transactions in general. Almost 90% of the respondents felt that the computer is a very important tool. There is a good indication that most people have a positive outlook about computer technology. However, it is important to note that there are a sizeable number of people who are skeptical about computer usage.

• It is important to understand the perceptions (advantages and disadvantages) that rural communities have about online shopping. A large percentage of respondents (60.5%) indicated that all families need internet access. A substantial number of respondents indicated that the internet was not a necessity in homes. 48% of the respondents could not operate the internet. However, a similar percentage of respondents indicated that they have access to the internet. Note that only 13.9% of the South African population actually uses the internet (Minniwatts Marketing Group, 2012).
To understand the process that can be followed to alleviate fears which rural communities have about electronic financial transactions. A large number of respondents (62.5%) indicated that they do not always use the internet to buy clothes; a large number of respondents (54.39%) indicated that they never use the internet to buy groceries and the large percentage of respondents (51.75%) do no using internet to do banking. This means that there is a crucial need to educate rural people on how to use new technology such as online shopping and online banking.

To develop a technology acceptance model for rural communities with regards to electronic banking and shopping. Davis (2010: 44) states that the Technology Acceptance Model will open up new markets that are not previously accessible. Investing in these technologies can lead to economic benefits through more price competition, lower inventory costs, reduced business travel and new distribution channels.

**Conclusion**

The perception of rural people in the South African context, a personal relationship between customers and bankers transactions has many boundaries especially in the rural areas. Research by Guru et al. (2000:26) reported that 90 percent of some consumers in the rural areas of South African have generally been afraid of new technology. These consumers may not have the knowledge or know how in dealing with computers specifically and thus trust human beings more than computers and machines. Their fear for computers and technology generally grows and eventually develops into a phobia for technology. Thus, technology phobia can also be a factor affecting the customers’ reluctance to opt for Internet banking. Online banking has great facilities for customers, but many people are not aware who live in rural areas. But if banks could provide training for those people, they are very much interested in using e-banking facilities. So banks instead of spending funds on developing online banking they can also spend funds and time on their customers. So both customers and banks would benefit and in this way the financial inclusive growth would be high in rural areas. Although online transactions have
become increasingly popular and many consumers prefer them this rapid development has however spawned an increase in a number of fraudulent practices and many consumers have found themselves to be unfortunate victims of phishing, crime ware and identity theft. However, with Norton Internet Security’s ground-breaking features, the risk is minimized.


Al-Sukhar, H. *Toward a Model for the Acceptance of Internet shopping in Developing Countries*, Information Technology for Development, Vol. 11, No. 4, 2005, pp.381-398.


http://www.answers.com Accessed on 14 April 2011 at 13H34 CAT.


Hassan, Ahmad M.; Kunz, Michelle B.; Pearson, Allison W.; Mohamed, Mobile Phones in Africa: How Much Do We Really Know? Social Indicators Research, 84, 1, 117-126.


Zulu. (2011). *Meet the Zulu women who still hold up the Zulu customs to this day in age*: Angelfire.com/biz7/the lone tree/Zulu.html. Accessed on 22 August 2011 at 11H20 CAT.
UNIVERSITY OF ZULULAND  
DEPARTMENT OF COMMUNICATION SCIENCE  
Anonymous Questionnaire  

About the safety of online shopping & Banking  

(i) We need your assistance to help us figure out the values and beliefs about the use of online money transactions.  

(ii) This is a voluntary, anonymous and confidential survey. Your name will not be linked to your responses.  

(iii) You are not compelled to participate. If you decide not to take part, you must return the blank questionnaire to the researcher.  

(iv) Your values and beliefs are important to us, not those of your family and friends. Tell us how you feel about issues which are questioned.  

(v) Read each question carefully and take a moment to think about each answer. Please use a pen to mark your responses by placing an X or a tick in the appropriate spaces, or by writing down the appropriate information, where required.  

(vi) Please do not change any of your responses; otherwise we have to set aside your questionnaire. (Do not scratch out or tip-ex any of your responses).  

RESEARCHER: Miss Makhosazane Mpungose. Cell: 0786622707  
Email: makhosib@gmail.com  
Study Leader. Professor Rugbeer  
This questionnaire consists of two sections:  

Section A requires permission for me to use your responses for research purposes; including your personal data like your age, gender, education and ethnicity.  

Section B deals with information relating to internet banking, online shopping and internet safety.  

SECTION A:  
INFORMATION ABOUT YOURSELF (Personal data)  

Please indicate your age group: Place ONE tick (✓) or a cross (X) in the appropriate block:

<table>
<thead>
<tr>
<th>Question 1</th>
<th>Tick (✓) or a cross (X)</th>
<th>Office use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 20 years old</td>
<td>✓</td>
<td>1</td>
</tr>
<tr>
<td>21 to 30 years old</td>
<td>✓</td>
<td>2</td>
</tr>
<tr>
<td>31 to 40 years old</td>
<td>✓</td>
<td>3</td>
</tr>
<tr>
<td>41 to 55 years old</td>
<td>✓</td>
<td>4</td>
</tr>
<tr>
<td>55 years and older</td>
<td>✓</td>
<td>5</td>
</tr>
</tbody>
</table>
Please indicate your gender. Place ONE tick (✓) or a cross (X) in the appropriate block:

<table>
<thead>
<tr>
<th>Question 2</th>
<th>Tick (✓) or a cross (X)</th>
<th>Office use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>If Other specify</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Please indicate your ethnic group. Place ONE tick (✓) or a cross (X) in the appropriate block:

<table>
<thead>
<tr>
<th>Question 3</th>
<th>Tick (✓) or a cross (X)</th>
<th>Office use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Indian</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Coloured</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>If Other specify</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

SECTION B:
INFORMATION ABOUT INTERNET BANKING AND ONLINE BUYING

Place ONE tick (✓) or a cross (X) in EACH row:

**ACCESS AND PROFICIENCY OF THE COMPUTER.**

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>I have access to a computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I have access to internet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EFFICIENCY**

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>I can work well on a computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I am good at surfing the internet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GENERAL PERCEPTION**

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>The computer is a very important tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Every family needs to have a computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Every family needs to have access to the internet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>The computer is as important as the telephone</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## INTERNET USAGE

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>I DO NOT WANT TO ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>I use the internet to do banking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I use the internet to buy clothes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I use the internet to buy groceries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I use the internet to buy tickets and toys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I use the internet to buy books</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I use the internet to buy play games</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I use the internet chat to friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I use the internet to download movies &amp; music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I use the internet find friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I use the internet to send and receive email messages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I use the internet to Apply for consumer loans or credit cards online</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>I use internet to do Inter-account transfers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## QUESTIONS ABOUT FREQUENCY OF COMPUTER APPLICATIONS

Place ONE tick (✓) or a cross (X) in EACH row:

<table>
<thead>
<tr>
<th></th>
<th>VERY OFTEN</th>
<th>Seldom</th>
<th>NEVER</th>
<th>I do not want to answer this question</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>I use a computer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>I use the internet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>I use the internet to do banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>I use the internet to buy clothes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>I use the internet to buy groceries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>I use the internet to buy tickets and toys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>I use the internet to buy books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>I use the internet to buy play games</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>I use the internet chat to friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>I use the internet to download movies &amp; music</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>I use the internet find friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>I use the internet to do Research</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>I use the internet to gamble on-line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>I use the internet to check news and weather</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>Disagree</td>
<td>Not sure</td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>-------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Internet banking is safe.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Internet banking is reliable (It does not give many problems)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Internet banking is more convenient than ordinary banking.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Passwords are well protected on the internet.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Internet banking is very affordable. It is much cheaper than ordinary banking.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Internet banking is easy to understand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Internet banking is easy to use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>All personal details which are used to perform internet banking are safe.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Internet banking ensures that your personal details are always kept safe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>I prefer Internet banking over physical (normal) banking.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Internet access (from a service provider) is easily available.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Internet access is affordable to everyone.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>I feel very secure when doing online shopping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Online buying is more easily accessible</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PREFERENCES**

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>I would like to use the Internet to check get online statements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>I would like to use the internet to pay my bills online</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>I would like to use the internet for general banking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>I would like to use the internet to Calculate my loan payment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>I would like to use the internet to look for products and compare prices.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 “ORDINARY BANKING” in this study refers to the traditional method of banking where a client would go physically to the banking for all related transaction.
Thank you for your cooperation.
Khuba

Esigcalelabeni District

Dear Sir

PERMISSION SOUGHT TO CONDUCT A SURVEY

My master’s student, Ms Makhosazane Mpungose, is undertaking empirical research in the field of Digital Communication in a rural setting. The purpose of this study is to investigate the feasibility of using electronic banking systems for rural communities.

This is a sincere appeal to you to assist the student, by permitting her to distribute questionnaires to the people of your village.

Your assistance and guidance is valued and appreciated.

Kind regards,

[Signature]

Prof May Rugbeer