CUSTOMERS’ ADOPTION BEHAVIOUR IN INTERNET BANKING: A COMPARATIVE ANALYSIS OF GHANA AND SWEDEN

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ABSTRACT

Internet banking has now become a global phenomenon. It is the fastest growing service that banks can offer in order to gain and retain new customers. However, the issue of adoption behaviour or pattern by final consumers seems to be a pivotal issue in the successful implementation of Internet banking which has benefited people from jurisdiction to jurisdiction and from country to country. In some countries, Internet banking has proven to be very reliable, effective and efficient whilst in some others, they are found to be extremely dormant due to adoption behaviour.

This study therefore tried to investigate if there are differences in Internet banking adoption behaviour between Ghana and Sweden. One bank each from Ghana and Sweden was selected for this study. The study employed the theory of the Extended Technology Acceptance Model by Davis and Venkatesh (2000). This model looks at the individual Perceived Usefulness, Perceived Ease of Use and Psychological Attachment of adoption. These three parameters of the theory lead to Behavioural Intention which has a positive correlation with actual usage.

The study was based on both qualitative and quantitative approaches and questionnaires were administered to some selected Internet banking customers of the two banks using purposive sampling technique. In the same vein, one banking staff each from the two banks knowledgeable in the Internet banking system of their banks was interviewed.

The study concludes that there is only a marginal or subtle difference in the adoption behaviour in Internet banking between Ghana and Sweden and that the low patronage of Internet banking in Ghana as compared to that of Sweden is due to reasons other than customers’ adoption behaviour.

**Keywords:** Internet Banking, Customers, Adoption, Ghana, Sweden
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CHAPTER 1 - INTRODUCTION

1.0 INTRODUCTION AND RESEARCH BACKGROUND

Internet banking has now become a global phenomenon. Almost every banking institution all over the world has embraced this technological system of banking due to the numerous benefits it brings both to the banks themselves and their clients or customers notable among them are convenience and time-saving in doing transactions. The Internet is now being considered as a strategic weapon and will revolutionize the way banks operate, deliver, and compete against one another, especially when competitive advantages of traditional branch networks are eroding rapidly (Nehmzow, 1997; Seitz et al, 1998).

However, the issue of adoption behaviour or pattern by final consumers seems to be a pivotal issue in the successful implementation of Internet banking which has benefited people from jurisdiction to jurisdiction and from country to country. In some countries, Internet banking has proven to be very reliable, effective and efficient whilst in some others, they are found to be extremely dormant due to adoption behaviour. Thus, there is the need to study critically the adoption behaviour of existing customers. Adoption behaviour patterns depend on many variables such as educational level, attitude towards innovation, trust, feelings of security, among others.

1.1 PROBLEM STATEMENT

Ghana is a fast growing developing country and it is expected to reach middle income status by the year 2015 under the Ghana Growth and Poverty Reduction Strategy two (GPRS II). The financial services sector is growing at a very fast rate especially with the grant of universal banking licenses to major banks in the country. This well-deserved growth has created the need and driven the interests of Ghanaians on Internet banking as it will help make banking transactions easier.

Though about 80 percent of banks in Ghana have started implementing Internet banking services in Ghana, the problem of Internet fraud that has risen recently in Ghana has generated some kind of fear in the banking institutions and the general public, in addition to the prevailing infrastructural problems as to whether it will be a good return on investment. Previous researches related to adoption behaviour have provided grounds on “Customer perceived value in Internet banking in Ghana” (Adams and Lamptey, 2009), “E-business adoption in the banking industry in Ghana” (Mensah and Marfo, 2009), “Electronic Retail Payment Systems: User Acceptability & Payment Problems” (Appiah
and Agyemang, 2004), “Reasons barring customers from using Internet banking in Iran: an integrated approach based on means-end chains and segmentation” (Mastoori, 2009), “Factors influencing the adoption of Internet banking” (Baraghani, 2007), “Adoption Issues of Internet Banking in Pakistani’ Firms” (Khan, 2007), “Customer Loyalty in Web-Only Banks” (Steinhagen and Kerrebroeck, 2006), “Impact of the Internet on customer loyalty in Swedish banks” (Alam and Khokhar, 2006), “Internet banking in Pakistan” (Shariq, 2006), “Keys factors that determine Internet banking adoption in Thailand” (Sattabusaya, 2007), among many others. However, only few have attempted to make a comparative analysis of the customers’ adoption behaviour between two or more countries.

This research or study seeks to make comparisons on the customers’ adoption behaviour of Internet banking between Ghana (a developing country) and Sweden (an advanced country). We have observed that there is a huge gap in the number of users of Internet banking between Ghana and Sweden. Consequently, we want to find out whether the huge gap in the number of users of Internet banking between Ghana (which is on the low side) and Sweden (which is on the high side) is as a result of customers’ adoption behaviour or by other factors.

1.2 JUSTIFICATION OF THE STUDY

Even though Internet banking is now a common technological phenomenon or development associated with almost every bank in the world, Ghana as a country is still being saddled with a number of challenges when it comes to this system of banking. Since we came to Sweden for our studies, we have been witnesses to how this system of banking is comprehensively developed and adopted here so we would like to compare this with what is prevailing in Ghana and see how Ghana can replicate the achievements of Sweden in this area of banking for the common good of her citizenry.

1.3 OBJECTIVES OF THE STUDY

a. General objective of the study: the general objective of this study will be to present an assessment of the adoption behaviour of Internet banking between Ghana and Sweden.

b. Specific objectives of the study: in order to accomplish the above general objective, the study will undertake to look at the following specific objectives:

i. To analyze whether there are differences in customers’ adoption behaviour of Internet banking between Ghana and Sweden.

ii. To examine what accounts for the differences if any.
1.4 RESEARCH QUESTIONS

The following are the research questions:

i. Are there any differences in customers’ adoption behaviour of Internet banking between Ghana and Sweden?

ii. What accounts for such differences in the adoption behaviour of Internet banking between Ghana and Sweden if any?

1.5 SIGNIFICANCE AND DISTINCTIVENESS OF THE STUDY

This study will benefit other researchers, students and academicians as it will add more knowledge to the existing literature in this area of study and also provide a framework for further research. This study is distinct from other published literature to an extent that, most literature and studies in the adoption behaviour of Internet banking normally concentrate on only one country and make not much effort to make a comprehensive comparison to other country or countries.

However, it is important to note that the Extended Technology Acceptance Model by Davis and Venkatesh (2000) which is being used in this research has been the same used in other studies in the same area and has been proven over the years. It is an improvement of the Technology Acceptance Model by Davis (1986) and considers perceived usefulness, perceived ease of use and usage intentions in terms of social influence and cognitive instrumental processes.

1.6 ORGANIZATION OF THE STUDY

This study is organized in five chapters. Chapter one features introduction and research background, statement of the problem, justification of the study, objectives of the study, research questions, significance and distinctiveness of the study and organization of the study. Chapter two discusses relevant literature related to the study while research methodology is covered in chapter three. In chapter four, we present a brief overview of the banks (both in Ghana and Sweden) selected for this study, and also our research findings and analysis. The last is chapter five, which presents the conclusions and recommendations of this study, based on our research findings and analysis and also the limitation of the study.
CHAPTER 2 – LITERATURE REVIEW

2.0 INTRODUCTION

This chapter presents a comprehensive review of previous studies conducted on Internet banking. Several important areas that will give clear meaning to this study based on our research objectives and questions have been thoroughly reviewed by the researchers.

2.1 INTERNET BANKING

Online banking is the fastest growing service that banks can offer in order to gain and retain new customers (Moody, 2002) cited by Singh (2004). Internet banking refers to the use of the Internet as a remote delivery channel for banking services. Such services include traditional ones, such as opening a deposit account or transferring funds among different accounts, and new banking services, such as electronic bill presentment and payment (allowing customers to receive and pay bills on a bank’s website) (Furst et al., 2000). Furst et al (2000) further state that banks offer Internet banking in two main ways. That is, an existing bank with physical offices can establish a website and offer Internet banking to its customers as an addition to its traditional delivery channels. A second alternative is to establish a “virtual,” “branchless,” or “Internet-only” bank.

According to the Internet Banking Comptroller’s Handbook (1999), Internet banking refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device. Internet banking products and services can include wholesale products for corporate customers as well as retail and fiduciary products for consumers. Ultimately, the products and services obtained through Internet banking may mirror products and services offered through other bank delivery channels. Some examples of wholesale products and services include: cash management, wire transfer, automated clearinghouse (ACH) transactions, bill presentment and payment. Examples of retail and fiduciary products and services include: balance inquiry, funds transfer, downloading transaction information, bill presentment and payment, loan applications, investment activity, other value-added services.

Internet banking according to Essinger (1999) cited by Abor (2004) is: “to give customers access to their bank accounts via a website and to enable them to enact certain transactions on their account, given compliance with stringent security checks.” Mols (1999) also mentions that by the use of the Internet it is possible for banks to offer a number of home banking services, such as a variety of banking, bill payment, and money
management services 24 hours a day. For example, customers can get up-to-date balance information on deposit and loan accounts, transfer funds between accounts, and communicate with the bank by e-mail. Thus, the Internet offers banks and other service firms like insurance companies and software distributors a new distribution channel.

According to Koskosas and Paul (2004), the emergence of Internet banking has made banks re-think their IT strategies in order to remain competitive as Internet banking services are believed to be crucial for the banks’ long-term survival in the world of electronic commerce. Today, customers demand new levels of convenience and flexibility on top of powerful and easy to use financial management tools, products and services, something that traditional retail banking could not offer. Thus, Internet banking allows banks to provide these services by exploiting an extensive public network infrastructure.

Reedy et al (2000) cited by Singh (2004), argues that not every product is suitable for web sales. However, it seems evident that banking services would fit perfectly on the Internet. Their argument is based on the fact that there is no physical product to be delivered, there are no queues, customers can bank at their leisure, they can obtain detailed information about products and services without being hurried by customers waiting in line to speak to a consultant, “you never see the bank manager anyway”, there is no compulsion to purchase investments and insurance you don't need, and there is no chance of being caught in the crossfire during a bank robbery.

Below is a model of the Internet banking environment which comprises the bank, the Internet and the customer:

![Internet banking environment diagram]

Figure 2: Internet banking environment

(Source: Hutchinson & Warren, 2003)
2.2 INTERNET BANKING IN GHANA

According to the Bank of Ghana’s updated list of banks (2009), there are 26 recognized and fully operational banks in Ghana. There are rural banks in Ghana which serve people in the hinterlands and are different from the traditional banks in terms of its capitalization threshold and nature of operations. These rural banks are 126 in total and they have their own central bank being the ARB Apex Bank which is also supervised by the Bank of Ghana. However, as at the time of this research, 17 out of the 26 banks were offering Internet banking services. Internet banking services provided currently in Ghana include electronic bill presentation and payment, funds transfer between a customer's own checking and savings accounts, or to another customer's account, loan applications and transactions, such as repayments of enrollments, bank statements, real time online balances and domestic wire transfer.

According to the Bank of Ghana E-zwich Report (2008), Internet banking in Ghana is facilitated by an automated clearing house system which was created during the introduction of the Ghana Interbank Payment Systems' E-zwich card introduction. The Ghana Interbank Payments and Settlements System (GHIPSS) is a company supervised by the Bank of Ghana which deals with solely the development of electronic banking through products such as E-zwich. E-zwich is the brand name for the common platform, which connects payment systems of all licensed banks and non-bank financial institutions e.g. savings and loans companies, credit unions, money transfer institutions, and rural banks in Ghana. What is significant though, about the common platform is that it provides an opportunity for financial institutions to expand without opening “brick and mortar” branches but to accept the point of sale (POS) equipment needed for the E-zwich access communication. This created an added advantage which spiraled Internet banking in Ghana across different banks at a faster rate as telephone and Internet banking services are available but their usage is limited (Bank of Ghana Annual Report, 2006).

For Internet banking to succeed in Ghana, then, there is the need for effective internal marketing to bank employees because if they are well informed and adapt to the use of Internet banking, it can have a significant influence on service quality to customers. The impact of internal marketing on the perception of service quality has been proven by Opoku et al (2009) in a research they conducted. The research was based on a survey of 32 top managers, 100 employees and 200 external customers of a major bank in Ghana to assess the impact of internal marketing on the perception of service quality. The results suggest that internal marketing can have an influence on service quality especially in relation to Internet banking.

2.3 INTERNET BANKING IN SWEDEN

There are four main categories of banks on the Swedish market: Swedish commercial banks, foreign banks, savings banks and co-operative banks. In November 2008, Sweden had a total of 123 banks. The number of commercial banks and foreign bank branches in
Sweden has increased from 43 in 2000 to 64 in November 2008. It is primarily more foreign banks that contributed to the increase. Also the number of Swedish commercial banks increased, including new Internet and telephone banks as well as securities’ firms and credit market companies that have become banks (Swedish Bankers’ Association, 2008).

Swedish banks are among the most advanced in Internet banking services. Almost all of the Swedish banks offer online status on accounts and other assets, online payments, and the possibility to buy and sell units in funds and shares. Corporate customers have been able to bank via the Internet for many years. By comparison with banks in most other countries, Swedish banks have a high proportion of Internet customers. In Europe, Sweden has one of the highest proportions of the population using bank services through the Internet. The share of Swedes paying their bills through the Internet had increased from 9 percent in 1999 to 63 percent in 2008. One key factor behind the success of online banking is that since the middle of the 1990s, Swedish banks have invested heavily in developing efficient, customer-friendly online banking services. Another important reason is the large proportion – nearly than 85 percent – of Swedish homes with access to the Internet (ibid).

The first online banking services in Sweden were launched in 1996. The range of services was limited in the first few years. As more services have been added and more computers installed in Swedish homes, the number of online banking customers has soared. By the end of 2007, Sweden’s banks had 7 million Internet customers out of a total population of 9 million – although it must be remembered that some of these customers use more than one bank (ibid).

Since the inception of Internet banking in Sweden in 1996, it has gained tremendous prominence. Its prominence may have been because of the attention it attracted from researchers, the huge initial investments and the high level of technological development in Sweden (Wang et al, 2003).
Figure 3: No. of private Internet customers of Swedish banks at the end of each year
(Source: Swedish Bankers’ Association, 2008)

2.4 INTERNET BANKING COMPARISON BETWEEN GHANA AND SWEDEN

Internet banking in Ghana is not very much developed to the level of Internet banking in Sweden. In Ghana, not all the banks are providing this service to their customers unlike Sweden where all the banks are offering this service. There are a number of reasons that account for the low level or patronage of Internet banking in Ghana in comparison with a country like Sweden. One of these factors is that not many people in Ghana have access to the Internet and hence few people have adopted Internet banking. According to the Internet World Statistics for 2009, Ghana with an estimated population of 23,887,812 people has only 997,000 people as Internet users representing a meagre 4.2% compared to Sweden with an estimated population of 9,059,651 people with Internet users of 8,085,500 people representing a whopping 89.2% (Internet World Stats, 2009). As a result of the low patronage of Internet in Ghana, the full impact of the Internet has not been felt in the country especially in the areas of e-commerce and banking (Adams and Lamptey, 2009). The low level of Internet patronage in Ghana as identified by Intsiful et al (2003) is due to the high cost of subscription and infrastructure as well as poor service quality by the Internet Service Providers.
Another reason why Ghana is lagging behind in Internet banking as compared to Sweden is the low level of computer literacy among the population. Not many people in the country are computer literates as compared to Sweden so people do not feel confident using this service as Internet banking service requires some level of computer literacy and Internet usage proficiency in order to be able to use it. This undoubtedly explains why a country such as Sweden is way ahead of Ghana when it comes to Internet banking.

Furthermore, poor customer service on the part of most of the banks in Ghana is a major contributory factor why many people have not adopted Internet banking and in fact banking as a whole in the country as compared to that of Sweden. As we have witnessed in Sweden, customers’ complaints to the banks are promptly addressed which the same cannot be said in Ghana in most cases. Based on our own experiences of Internet banking in Sweden and how the system is very effective and efficient, one of the authors of this study made a transaction online which did not go through but unfortunately his account was debited with the cost of the transaction. Being worried that he had lost some money (because that was the first time he had encountered this problem), he immediately made a phone call to the bank to complain about this error and as his account was checked by the bank whilst still on the phone to find out what actually went wrong, the system had already rectified the error by itself and his account credited back with the amount. This could have taken days and even weeks in Ghana to resolve this problem as some of the authors have experienced before.

Another problem that has culminated in the low patronage of Internet banking in Ghana as compared to that of Sweden based on the authors’ own observation is marketing of Internet banking products and services. We believe that these products and services are well marketed in Sweden than Ghana. So for Ghana to catch up with Sweden in Internet banking, the banks will have to do serious marketing of their online products and services to attract a sizeable patronage.

Based on these facts, our own observations and experiences in Internet banking both in Ghana and Sweden, we are convinced that Internet banking in Sweden is more developed than that of Ghana. However, Ghana can gradually rise up to the standard of Internet banking in Sweden if some of these problems especially on the part of the banking institutions are eliminated.

### 2.5 BENEFITS OF INTERNET BANKING BOTH TO THE BANK AND THE CUSTOMER.

The growing use of the Internet for banking services provides obvious advantages, not only for the banks’ customers but also for the banks themselves. According to Furst et al. (2000), both banks and their customers stand to benefit substantially using the Internet to
collect information. Customers can benefit from allowing banks to collect and integrate large amounts of personal information that help banks to tailor a wide range of products to individual demands.

Internet banking gives the customers a better overview of their banking business and enables them to handle their everyday financial transactions without having to visit their local branch. Customers who start to bank online are also proving to be more active as they engage in more banking transactions. As for the banks, the Internet enables them to make the distribution and production of their banking services more efficient. Eventually, the growing use of online banking will allow banks to replace their conventional branch offices with ones concentrating on advisory services and sales (Swedish Bankers’ Association, 2008).

Internet banking helps in expediting banking transactions, reducing the cost and ensuring that you can utilize various banking services in your living room or even while travelling thousands of miles away from your home (Peterson, 2006).

Jayawardhena and Foley (1998) aver that Internet banking most importantly allows banks to delegate task to customers, save the bank’s time and all the expenses that would have been incurred as payments to staff employed to carry out the functions, while at the same time minimizing the errors that would have been faults of the bank.

When compared to other payment channels, Internet has seen to offer many advantages both for banks and for customers. It is low-priced, not dependent on place or opening hours of banks, and moreover, it puts the customer in control (Karjaluoto, 2002) cited by Kuisma et al (2007). Consequently, banks have increased investments in Internet services and reduced the number of branch offices and payment automated teller machines (ATMs).

For the banks, Internet banking, besides providing value added for their customers is a means to cut costs and increase efficiency. Branch office service for such a routine action as bill payment is expensive and, compared to Internet banking, maintaining bill payment ATMs is also inefficient for the banks (Laukkonen et al., 2008).

Bradley and Stewart (2002) cited by Mastoori (2009) state that achieving competitive advantage, reducing costs, and protecting an organizations strategic position as factors that encourage the diffusion of an innovation. Also, Lee et al (2005), asserts that innovative technologies save costs, improve customer experiences at service encounters and enable effective customer relationship management for service providers.

Internet banking offers convenience to the customer. One does not have to go to the bank’s branch to request a financial statement. You can download it from your online bank account, which shows you up-to-the-minute updated figures. As far as customers
are concerned, their account information is available round the clock, regardless of their location. They can reschedule their future payments from their bank account while sitting thousands of miles away. They can electronically transfer money from their bank accounts or receive money in their bank accounts within seconds. You can apply for a loan without visiting the local bank branch and get one easily. You can buy or sell stocks and other securities by using your bank accounts. Even new accounts can be opened; old accounts can be closed without doing tedious paperwork. Especially with the increasing acceptability of digital signatures around the world, Internet banking has made life much easier and banking much faster and more pleasant, for customers as well as bankers (Peterson, 2006).

Also, Peterson (2006) mentions that Internet banking is cost effective to the bank. According to him, thousands of customers can be dealt with at once. There is no need to have too many clerks and cashiers. The administrative work gets reduced drastically with Internet banking. Expenditures on paper slips, forms and even bank stationery have gone down, which helps raise the profit margin of the bank by a surprisingly large number.

2.6 ADOPTION

Adoption according to Rogers and Shoemaker (1971) is the decision to use and accept an innovation in the form of a new idea, product or service and in our specific case acceptance and continued use of Internet banking. Adoption process is categorized traditionally into five categories namely:

(1) Innovators: - These are people who love risk and want to try on new things, and want to be seen as the first to get to know of new ways of doing things and are always on the look - out for what is new. They do not follow the status quo, they believe change is a constant phenomenon and as Aristotle puts it, "you cannot step in the same river twice".

(2) Early Adopters: - People in this category are well respected people in the society and normally are some kind of opinion leaders in their local communities and they tend to be among the first group of people to get hold of new products or ideas.

(3) Early Majority: - These people look up to the innovators and early adopters to know how a product works before they go in for it. They mostly make their decisions based on recommendations from people who are already using the product or service and deliberate upon it a while before making a decision to adopt it.

(4) Late Majority: - These people are more skeptical and they are motivated to adopt based on peer pressure. They adopt products after the average people have done so. They normally adopt when a product or service becomes very popular and there is mass consumption.
(5) Laggards: - They take quite a long time before they adopt and they include those who never actually adopt at all. They are more traditional and tend to be very suspicious of change agents and innovations.

![The Adoption Process Diagram]

*Figure 4:*

(Source: Bourne, 1959 cited at [http://www.marketingteacher.com/Lessons/lesson_adoption_process.htm](http://www.marketingteacher.com/Lessons/lesson_adoption_process.htm))

The diagram above is a survey conducted by Bourne (1959) which showed that in any adoption process only 2.5% of the adopters are found in the innovator category whilst the Early Majority and the Late Majority have the highest percentages of 34% each having a total combined of 64%. This makes adoption process one that requires patience because some innovations may take years before reaching the early majority stage where the product, idea or service becomes popularly accepted. In some cases, a product or idea never get diffused through all categories in the individual adoption process.

It is necessary to note that adoption is mostly influenced by people's attitude towards trying new things and also experiences that they have gained throughout their lives. In such a case, you are likely to see the youth adopting quickly to a new product or service or technology because they like to try out new things and are generally risk lovers whilst the older people like to get stuck in the old ways of doing things as a result of their life
experiences. In Ghana for example, people who worked during the 1980's are more reserved on trying new banking products as a result from a banking crisis that happened in the country at that time. However, the younger ones who were not privy to these experiences are more open to investing in new banking products.

2.6.1 TRUST AND SECURITY AS IMPORTANT FACTORS FOR ADOPTION

2.6.1.1 TRUST IN INTERNET BANKING

The introduction of Internet banking has created highly competitive banking market environment which has in a way favoured the larger and well established banks. However, the issue of great concern is how perceived customers would trust the system and adopt it. As Internet banking helps banks in managing and understanding better their customers’ attitudes towards new technology, Baraghani (2007) thinks they can be put in a better position to predict consumer behaviour or pattern. A Study by Sathye (1999) which empirically investigates the adoption of Internet banking by Australian consumers shows that security concerns and lack of awareness about Internet banking and its benefits stand out as being the obstacles to the adoption of Internet banking in Australia. Security concerns breaches trust and may affect adoption behaviour in general.

Mayer et al (1995) referred to the fundamental difference between trust and trusting behaviour as a “willingness” to assume risk and actually “assuming” risk. There is no risk taken in the willingness to be vulnerable (i.e., to trust), but there is risk in the behavioural manifestation of the willingness to be vulnerable. The adoption of Internet banking, a form of trusting behaviour, means that a consumer is “taking” risk, since he puts himself in a possibly vulnerable situation.

Granovetter (1973) defines social network theory as those informal channels of communication which are the primary means of disseminating market information when the services are difficult to evaluate. Among others, word-of-mouth (WOM) referral is known to have a strong influence on consumer behaviour. However, Stewart (1999) argued transference as a means by which initial trust in an unknown object (e.g. the Internet) may be established on which the transfer of trust/distrust can be studied based.

Kim and Prabhakar (2000) developed a conceptual model that leads us to believe that trust in the electronic channel and perceived risks of e-commerce are the major determinants of the adoption behaviour. Based on the social network theory and the trust theory, determinants of trust in the electronic channel are included in the research model as demonstrated in the diagram below.
Figure 5: Initial Trust, Perceived Risk and Adoption of Internet Banking Model
(Source: Kim and Prabhakar, 2000)

The diagram above is a study by Kim and Prabhakar (2000) and is expected to show that trust in the e-channel and trust in the bank have effects on the adoption of Internet banking.

They found out that by separating effects of trust from those of perceived risks, there would be a better understanding on the influences of these two variables on adoption behaviour.

Their research provides both theoretical explanations and empirical validations on the differences between adopters of Internet banking and non-adopters based on which specific recommendations on marketing strategies practitioners should expedite action on to improve the level of adoption of Internet banking, in order to provide both convenience and reduction in transaction costs.

Lee et al. (2005) asserts that for a new technology-based product or service at an early stage of diffusion, it is likely that only a small subset of consumers have adopted it. When non-adopters still comprise the majority of the target populations, describing all non-adopters as a homogeneous population may be inaccurate and inappropriate. It is important to be able to identify differences, not only between adopters and non-adopters,
but also among non-adopters, the latter providing a means of identifying the consumer segments likely to be profitable in the future.

2.6.1.2 INTERNET BANKING SECURITY

According to Gerrard and Cunningham (2003), in Internet banking, security is one of the most important future challenges because customers fear higher risk in using the web for financial transactions. Guttmann (2003) argues that e-cash transactions engage a high degree of security. Neither party to the transaction, nor third parties, should be able to alter or reproduce information transferred from buyer to seller. The public must be convinced that e-cash is trustable.

Koskosas and Paul (2004), state that the use of new distribution channels such as the Internet increases the importance of security in information systems as these systems become sensitive to the environment and may leave organizations more vulnerable to system attacks. Thus, the issue of security in the context of Internet banking is an interesting candidate to investigate. According to Hutchinson and Warren (2003), Internet users are weary about privacy issues including transparency, collection, use and disclosure of their personal information. This concern primarily relates to authentication. The banking and finance industries report the highest incidence of misuse being 57 percent, which is directly related to these industries having one of the highest dependencies on computers in the workplace (Hutchinson, 2000) cited by Hutchinson and Warren (2003). The close relationship that exists between e-commerce and Internet banking means that an Internet banking session must satisfy the same security requirements as listed below:

(1) **Identification and authentication** – The ability to uniquely identify a person or entity and to prove such identity.

(2) **Authorization** – The ability to control the actions of a person or entity based on its identity.

(3) **Confidentiality** – The ability to prevent unauthorized parties from interpreting or understanding data.

(4) **Integrity** – The ability to assure that data have not been modified accidentally or by any unauthorized parties.

(5) **Non-repudiation** – The ability to prevent the denial of actions by a person or entity.

(6) **Availability** – The ability to provide an uninterrupted service.

(7) **Privacy** – The ability to prevent the unlawful or unethical use of information or data.
(8) **Auditability** – The ability to keep an accurate record of all transactions for reconciliation purposes.

These eight security requirements have been proposed as the basis for the e-commerce security framework (Labuschagne, 2000) cited by Hutchinson and Warren (2003). Accordingly, authentication mechanisms need to be incorporated to provide the cornerstone of authentication for the Internet banking framework. This would comprise the use of passwords, smart cards and possibly biometrics.

Also, NOIE et al (1999) cited by Hutchinson and Warren (2003), mention that the security protections offered by banks and which customers anticipate should include:

- careful reference to their authorized websites in their publications;
- verification via the use of a digital certificate;
- evidence of security protection displayed on the screen; e.g. Padlock icon;
- protection of PINs and passwords;
- on-screen and mouse-operated keypads for sensitive information;
- virus protection;
- at least 128-bit encryption;
- firewall implementation;
- Stated limits to customer liability for unauthorized use of access codes.

Security breaches can lead to a number of problems such as destruction of operating systems, disclosure of proprietary information, and disruptions of information access and exchange (Min and Galle, 1999). As computer crimes are soaring, companies are increasingly concerned about the security of their external computer network. According to a San Francisco-based Computer Security Institute, about 75 percent of the 563 US corporations and non-profit organizations they surveyed had reported financial losses exceeding $100 million in the previous 12 months due to computer security breaches. It is also reported that 20 percent of organizations that have external computer network access have been hacked by intruders (Garner, 1995) cited by Min and Galle (1999).

Chellappa and Pavlou (2002) argue that the introduction of new information technologies has always been accompanied by security concerns and the future of electronic commerce depends on controlling information security threats, enhancing consumer security perceptions and building trust. According to a study by Business Week (2000) cited by Chellappa and Pavlou (2002), 61 percent of the survey respondents indicate that they would transact on the Internet if the security and privacy of their personal information could be adequately protected. Consequently, the issue of security in Internet banking is very important and should not be compromised so that the optimum benefits of the system could be achieved.
Below is a model for Internet banking security:

Figure 6: Security issues of Internet banking
(Source: Hutchinson & Warren, 2003)

2.7 THEORETICAL FRAMEWORK

The dominant theoretical framework for analyzing Internet banking adoption behaviour has been the Extended Technology Acceptance Model developed by Davis and Venkatesh (2000); with many subsequent studies also including the additional dimension of the Trust Model developed by Kim and Prabhakar (2000).

In conducting this research, we have employed Davis and Venkatesh (2000) model which has been discussed in detail below together with the “Theory of Planned Behaviour” by Ajzen (1991) which introduces social influence in the formulation of the Extended Technology Acceptance Model.

2.7.1 THE THEORY OF PLANNED BEHAVIOUR

This theory was developed by Ajzen (1991) and it provides a framework to study people's attitude towards behaviour patterns. Thus, the most important determinant of a person's behaviour is intention. The individual's intention to perform a behaviour is a combination of attitude to perform the behaviour and subjective norm. This includes;
behavioural belief, attitude towards the behaviour, subjective norm, normative beliefs, control beliefs, perceived behavioural control and the motivation to comply.

**CONCEPTUAL MODEL OF THE THEORY OF PLANNED BEHAVIOUR**

![Conceptual Model](image)

Figure 7:

(Source: Ajzen, 1991)

The theory helps us to formulate an understanding of the influences on people’s behaviour which is not under their direct control, identify how and where to target strategies for a changing behaviour and explain in particular context to this work why people may decide to adopt Internet banking. The limitations of this theory are that it does not take into consideration demographical factors, personality issues, tenets of measurement among others. Nonetheless, it is a very important study in social psychology which serves as a basis to determining rational behaviour and permeates other areas of study.

2.7.2 **TECHNOLOGY ACCEPTANCE MODEL**

This theory was developed by Davis et al (1989) to give an understanding as to how information system innovations are accepted or adopted by studying people’s adoption behaviours. This theory was specifically tailored to the adoption of information systems, such that factors like perceived usefulness which is based on a person’s “subjective
probability that using a specific application system will increase his or her job performance within an organizational context” (Davis et al., 1989, p. 985) and perceived ease of use which is “the degree to which the user expects the target system to be free of effort” (pp. 985). These two variables predict attitude towards use and serve as the basis for Behavioural Intention which leads to actual use. The process in technology acceptance model is illustrated below:

Figure 8: The Technology Acceptance Model
(Source: Davis et al. 1989)

2.7.3 THE EXTENDED TECHNOLOGY ACCEPTANCE MODEL

This is an extension of the Technology Acceptance Model to include social psychological influences on people’s attitude to adopt based on Kelman (1958) research that changes in attitudes or behaviours as a result of social influences may be different though the resulting overt behaviour may seem to be the same. Thus in adopting certain behaviour, some psychological attachment specific to the individual may have an influence in predicting an individual’s behavioural intention which leads to actual use. The Extended Technology Acceptance Model is presented below together with its hypothesized relationships which explain how the diagram connects and the form the basis for our understanding on how to apply the model:
**Figure 9: The Extended Technology Acceptance Model**

(Source: Davis and Venkatesh 2000)

**H1a:** There will be a positive relationship between Perceived Usefulness and Attitude Toward Using the system.  
**H1b:** There will be a positive relationship between Perceived Ease of Use and Attitude Toward Using the system.  
**H1c:** There will be a positive relationship between Perceived Usefulness and Behavioural Intention to use the system.  
**H1d:** There will be a positive relationship between Attitude Toward Using and Behavioural Intention to use the system.  
**H1e:** There will be a positive relationship between Behavioural Intention to use the system and Actual Use.

**H2a:** There will be a positive relationship between Compliance and Behavioral Intention.  
**H2b:** There will be a positive relationship between Internalization and Behavioural Intention.  
**H2c:** There will be a positive relationship between Identification and Behavioural Intention.

**H3a:** There will be a positive relationship between Compliance and Attitude Toward Using.  
**H3b:** There will be a positive relationship between Internalization and Attitude Toward Using.  
**H3c:** There will be a positive relationship between Identification and Attitude Toward Using.

In choosing a model for our research, we have considered the Extended Technology Acceptance Model because the Technology Acceptance Model does not include the social influence in the adoption of Internet banking. Thus, the Extended Technology
Acceptance Model provides a better approach to effectively answer our research questions especially as we are making a comparative analysis of adoption behaviour in Sweden, an advanced country and Ghana, a developing country with two distinct social influences. Therefore, the Extended Technology Acceptance Model will exhibit these differences if any and help us make a more meaningful comparison.
CHAPTER 3 – RESEARCH METHODOLOGY

3.0 INTRODUCTION

An essential aspect of any research is the activity of data collection, whether primary or secondary or both and the method of analysis employed that can help answer the research questions and objectives.

In this chapter, the researchers have outlined and discussed the various research methods used in this study. Here, the research purpose, the research approach or design, the categories or types of data gathered, the sampling techniques adopted, the data collection instruments employed and an overview of the methods or techniques used in our data analysis have been presented.

3.1 RESEARCH PURPOSE

Yin (2003) categorizes research into three different types depending on the nature of the purpose or research problem and these are exploratory, descriptive and explanatory, although a given study can have more than one of these purposes (Saunders et al, 2000; Babbie, 2004). Based on our research problem, objectives and questions, our research purpose is primarily descriptive which tries to answer the question “what.” We want to describe what differences are there in Internet banking customers’ adoption behaviour between Ghana and Sweden and what accounts for such differences if any.

3.2 RESEARCH DESIGN OR APPROACH

The research design includes the overall research approach that was taken and the detailed information about how this study was carried out. In doing this, we compared quantitative and qualitative research approaches and consequently used both as the approach for our study.

In the same way, inductive and deductive research approaches for doing our data analysis was juxtaposed and the latter was selected as our procedure for our data analysis and conclusions. Deductive approach was used because there are already established theories and hypotheses within the area of our study from which conclusions were drawn or deduced from these theories and hypotheses. Also, we had a limited time to complete the study and therefore the deductive approach seemed appropriate for this research.
3.2.1 QUANTITATIVE AND QUALITATIVE RESEARCH APPROACHES

According to Maykut and Morehouse (1994), quantitative research is based on observations that are converted into discrete units that can be compared to other units by using statistical analysis. So here, it can be observed that statistical or numerical analysis is an essential part of quantitative research. Qualitative research, on the other hand, generally examines people’s words and actions in narrative or descriptive ways more closely representing the situation as experienced by the participants. According to Greener (2008), qualitative methods are increasingly accepted in social science and business research as this branch of enquiry differentiates itself from a scientific positivist paradigm.

<table>
<thead>
<tr>
<th>Quantitative Approach</th>
<th>Qualitative Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures objective facts</td>
<td>Construct social reality, cultural meaning</td>
</tr>
<tr>
<td>Focus on variables</td>
<td>Focus on interactive processes, events</td>
</tr>
<tr>
<td>Reliability is key</td>
<td>Authenticity is key</td>
</tr>
<tr>
<td>Value free</td>
<td>Values are present and explicit</td>
</tr>
<tr>
<td>Theory and data are separate</td>
<td>Theory and data are fused</td>
</tr>
<tr>
<td>Independent of context</td>
<td>Situationally constrained</td>
</tr>
<tr>
<td>Many cases, subjects</td>
<td>Few cases, subjects</td>
</tr>
<tr>
<td>Statistical analysis</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Researcher is detached</td>
<td>Researcher is involved</td>
</tr>
</tbody>
</table>

Table 1: Quantitative and Qualitative Research Approaches
(Source: Neuman, 2006)

Based on our research problem, research objectives and research questions, this study fits into the category of both quantitative and qualitative measures. The approach used in
analyzing the data collected from the Internet banking customers was quantitative and the approach used for analyzing the data collected from the banking staff was qualitative.

3.3 SAMPLING TECHNIQUE

The logic of using a sample of subjects is to make inferences about some larger population from a smaller one – the sample (Berg, 2001). Since the whole population is extremely difficult to study due to constraints such as timeframe and financial resources, it is always better to select a sample that will have to be studied. This sample in most cases then becomes a representation of the population.

The sampling technique used for this study was purposive or judgemental non-probability sampling technique. This is a type of sampling technique in which you select the units to be observed on the basis of your own judgement about which ones will be the most useful or representative (Babbie, 2004; pp 183). Also, according to Saunders et al (2000), purposive sampling enables the researcher to use his judgement to select cases that will best enable him to answer the research questions and to meet the objectives. This form of sample is often used when working with very small samples such as in case study research and when one wishes to select cases that are particularly informative. The logic on which the researcher bases his strategy for selecting cases for a purposive sample should be dependent on the research questions and objectives (Saunders et al, 2000). Purposive sampling increases the likelihood that variability common in any social phenomenon will be represented in the data, as opposed to say random sampling which tries to achieve variation through the use of random selection and large sample size (Maykut and Morehouse, 1994; pp 45).

Based on the research topic and questions for this study, the researchers chose one bank each from Ghana and Sweden that was to be studied. These banks are Merchant Bank Ghana Ltd and Nordea Bank Sweden. Because it is a comparative study between two countries, it was imperative for the researchers to select banks that are offering quite similar products and services. So it must be noted that both Merchant Bank Ghana Ltd and Nordea Bank Sweden are providing both traditional “brick and mortar” banking services and Internet banking services. The Internet banking services are complementary services provided by these two banks to their customers. Nordea Bank Sweden was selected on the basis that it is one of the major banks in Sweden with a substantial number of Internet banking customers. In the same vein, Merchant Bank Ghana Ltd was selected on the basis that it is also one of the major banks in Ghana with quite a sizeable number of Internet banking customers in comparison with other banks in Ghana and it is also quite doing well in the provision of this banking service compared to its competitors in Ghana.
It must be stressed that the focus of this study was on the customers of the selected banks who access Internet banking products and services and not the banks themselves. But since it is the banks that provide these Internet banking products and services, it was equally important for the researchers to solicit the opinions of the banks themselves on how relevant or otherwise the Internet banking system has proven to be since they introduced it in their various banks. As a result, two banking staff, one each from Merchant Bank Ghana Ltd and Nordea Bank Sweden who are well-abreast with their Internet banking systems were interviewed. Questionnaires were also administered to customers of the selected banks using purposive sampling technique as already mentioned. 35 questionnaires each were administered to customers of both Merchant Bank Ghana Ltd and Nordea Bank Sweden. It must be emphasized here that these customers of the two banks are not only Ghanaian or Swedish customers but include nationals from other countries who also reside in these countries and are Internet banking customers of these two banks.

3.4 DATA TYPES AND SOURCES

As we have already indicated, our overall research design or approach was based on quantitative and qualitative measures. We therefore gathered our data from both primary and secondary sources.

3.4.1 PRIMARY DATA

Primary data is recognized as data that is gathered for a specific research in response to a particular problem through interviews, questionnaires or observations. The gathering of primary data for this study was done through the use of questionnaires and interviews.

According to Sullivan (2001), questionnaires and interviews are two basic tools for conducting a survey. The questionnaires were administered to customers of the two banks we selected from Ghana and Sweden who are using Internet banking. The questionnaire contained a lot of questions with different themes specific to addressing our research objectives and questions. Furthermore, we also interviewed personnel each of the two banks to solicit their opinions on their Internet banking systems.

3.4.2 SECONDARY DATA

Secondary data often prove to be of monumental or great value in descriptive research (Zikmund, 1984). In using secondary data for this study, we ensured that they were
largely accurate, valid, reliable and relevant to our needs. Secondary data for conducting this study was collected mainly from two sources: internal and external.

- Internal sources: internal sources here refer to data that were collected from the two banks in Ghana and Sweden that we selected for this study. These included information from the banks’ websites, brochures and other vital documents that were made accessible to us by the banks on their Internet banking systems.
- External sources: the researchers made use of the Internet, books, peer-reviewed journal articles, past research works, papers, reports and other published materials for this study. The resources that were mostly searched for collection of these data were the BTH library catalogue, LIBRIS, ELIN, Business Source Premier, ISI-Web of Knowledge, Scopus, Electronic books via LIBRIS, Google Scholar.

3.5 DATA COLLECTION METHODS

We painstakingly considered a number of factors in deciding which instruments or methods of data collection to be employed in our research. In this study, we made a comparison between Ghana and Sweden on Internet banking based on customers’ adoption behaviour. One bank each engaged in Internet banking from Ghana and Sweden was selected for our data collection. Due to this comparative analysis we undertook and the fact that our research approach was fundamentally quantitative and qualitative, we adopted questionnaires and interviews as the means of gathering our primary data.

3.5.1 QUESTIONNAIRES

A questionnaire is a form that contains typed questions respondents respond to by filling the forms. This form can be given directly to the respondents or sent to them via mail or Internet (Sullivan, 2001). According to him, the questions should be well crafted so that respondents can answer them without further clarification or assistance. Questionnaires present questions in two forms – open-ended and close-ended. In open-ended questions, respondents are not restricted to a number of answers from which to choose. That is, they are free to provide any answer they wish to the question. In close-ended questions, respondents are restricted to a fixed set of answers from which to choose.

In this study, we mostly used close-ended questions where customers were asked to choose from a fixed set of answers on their opinions on Internet banking measured on a five-point rating scale commonly referred to as Likert-style rating scale. We mostly used close-ended questions because the duration we were to complete the research was short and from experience people are more willing to answer questionnaires if they are close-ended questions because those type of questions are relatively easier to answer than open-
ended questions. So we did this with a view to increasing the response rate within the time frame we were to gather the data for this study. We designed the questionnaires with the following three parameters in mind which constitute the Extended Technology Acceptance Model we were using for this study and these parameters are *Perceived Usefulness, Perceived Ease of Use and Psychological Attachment*. These three parameters lead to *Behavioural Intention* (Intention to Use) which has a positive correlation to actual usage. We were convinced that by asking questions centred on those three parameters, our research questions were to be appropriately answered. The structure of our questionnaire was such that questions 1 – 3, 4 – 6 and 7 constituted *Perceived Usefulness, Perceived Ease of Use and Psychological Attachment* parameters of the Extended Technology Acceptance Model respectively.

We identified customers of Merchant Bank Ghana Ltd and Nodea Bank Sweden who are using Internet banking through our Facebook (a social networking site) contacts and administered to them Internet-based questionnaires. We delivered Internet-based questionnaires because we could not travel to Ghana to physically administer paper-based questionnaires as a result of time constraints and also we felt that all the Internet banking customers have computer and Internet skills and therefore answering Internet-based questionnaires would not pose any problem for them.

3.5.2 INTERVIEWS

According to Sullivan (2001), an interview involves directly reading out questions to respondents and recording their response. It is either conducted face-to-face or over the telephone and it has the highest response rate and allow longer set of questions and deeper probe.

In conducting this research, we interviewed one staff each from Merchant Bank Ghana Ltd and Nordea Bank Sweden who is extremely knowledgeable in their Internet banking systems. The interview in Nordea Bank Sweden was done by the researchers themselves but in Merchant Bank Ghana Ltd, it was conducted through our friend in Ghana because the researchers could not travel to Ghana to conduct it themselves. We sent the kind of questions that we wanted answered to this friend and he did the interview on our behalf by recording the responses on tape and sending it to us later. Initially, we had wanted to conduct the interview at Merchant Bank Ghana Ltd on telephone when we realized we could not travel to Ghana to physically conduct the interview but our respondent preferred a face-to-face interview so our friend had to come in to assist us in that regard.
3.6 DATA QUALITY ISSUES

Establishing the trustworthiness or authentication of the findings of a research is very imperative in any research work. Your study should be believable and trustworthy and should persuade your audiences, including most importantly the researcher that the findings of the inquiry are worth taking account of (Robson, 2002). Saunders et al (2007) mention that validity and reliability constitute the credibility of a study. So in collecting our data and analyzing them, we ensured that these two key concepts were fully integrated in order to ensure the credibility and trustworthiness of this study. These two important concepts to be observed in any research work have been explained in detail below.

3.6.1 VALIDITY

Validity, according to Robson (2002, pp 93) is concerned with whether the findings of a research are really about what they appear to be about. Validity is also defined as the extent to which data collection methods or methods accurately measure what they intended to measure (Saunders and Thornhill, 2003), cited by Baraghani (2007). Neuman (2006) asserts four points on the authentication and trustworthiness of a research project and these are;

- Ecological Validity: how the researcher’s data represent the response of respondents and the extent to which the researcher serves to distract the respondents.
- Natural Validity: in-depth account of a logical procedure
- Member Validation: confirmation of a researcher’s report by the elements he studied
- Competent Insider Performer: researcher’s participation as an element of studied population

In validating our test results, we also decided to run a test using the same number of respondents where we selected the first 25 respondents from Ghana to compare with 25 respondents from Sweden.

3.6.2 RELIABILITY

Robson (2002) refers to reliability as the consistency or stability of a measure; for example, if it were to be repeated, would the same result be obtained? Reliability can also be defined as the degree to which measurements are free from error, and therefore, yield consistent results. Operationally, it is defined as the internal consistency of a scale, which assesses the degree to which the items are homogeneous (Easterby-Smith et al, 2008). So,
in a nutshell, reliability has to do with whether alternative research would reveal similar information.

In this study, we tried to minimize bias and ambiguity to obtain valid and reliable data. We revised or refined our interview questions and questionnaires several times after series of discussions with some people. Additionally, we initially tested our final questionnaire on five respondents to ensure its validity and reliability before launching it to the whole sample. It must be noted that these initial five responses were not used in analyzing our data.

3.7 METHODS OF DATA ANALYSIS

Data analysis generally consists of examining, categorizing, tabulating or otherwise recombining the evidence to address the initial proposition of a study (Yin, 1994). According to him, the ultimate goal of analyzing data is to treat the evidence fairly, to produce compelling analytical conclusions and to rule out alternative interpretations.

In analyzing our data, we used a deductive approach because there are already established theories and hypotheses within the area of our study which we wanted to make inferences from. According to Goertz and LeCompte (1981) cited by Maykut and Morehouse (1994), a deductive approach to data analysis is characteristic of the traditional scientific method; hypotheses are generated prior to beginning the study, indicating the relevant data to be collected (the variables); the resulting data is mathematically analyzed to determine whether the hypotheses have been confirmed or disconfirmed.

In order to ascertain customers’ adoption behaviour in Internet banking between Ghana and Sweden, we employed descriptive statistics in the presentation of our results so that the comparison between these two countries would become clearer. Tables and charts were used where necessary to facilitate discussions of the analysis.
CHAPTER 4 – RESEARCH FINDINGS AND ANALYSIS

4.0 INTRODUCTION

In this chapter, we present a thorough discussion of the data collected for this study and the analysis. Additionally, the two banks from Ghana and Sweden that were interviewed and whose customers were administered with the questionnaires are also reviewed prior to our discussions on the data findings and analysis.

4.1 BRIEF OVERVIEW OF MERCHANT BANK GHANA LTD AND ITS INTERNET BANKING PRODUCTS AND SERVICES

Merchant Bank Ghana Limited (MBG) provides a comprehensive range of banking services to its customers and clients, using its worldwide network of correspondent banks and their agencies. The range of MBG's banking services includes:

- Domestic and International Banking Operations for Corporate Customers, Small & Medium Enterprises (SMEs) and, High Net-worth Individuals;
- Treasury Services
- Money and Capital Market Operations
- Hire Purchase and Leasing Services; and
- Foreign Remittances

The Bank has two wholly-owned specialized subsidiaries namely;

- Merban Investment Holdings Limited (MIHL) - dealing in Funds/Portfolio Management, Money Market Operations, Investment Advisory Services, Trustee Services and Custodial and Nominee Services;
- Merban Stockbrokers Limited (MSL) - dealing in Brokerage Services, Underwriting of new Issues, and Investor Search & Joint Venture Arrangement; and

The MBG group also has the following additional specialist services tailored to meet its customers’ needs:
• Registrar Services - maintaining records of Shareholders and Creditors, facilitating dividend payments to Shareholders; and

• Corporate Finance & Advisory Services (CFAS)- handling Corporate restructuring, Joint Venture Arrangement, Company Valuation, Project Finance; Funds Sourcing, Issuing House Services and General Financial Advisory Services.

• Merban Finance & Leasing Company Limited (MFL) - dealing in Hire Purchase transactions and Leasing.

The bank has taken advantage of the opportunities offered by the introduction of Universal Banking Business in Ghana and MBG has fully developed all three areas of universal banking namely; Retail, Corporate and Investment.

The branch network of Merchant Bank Ghana Ltd currently stands at 20 with plans afoot to expand to 25 branches soon (Source: Bank’s Website).

Merchant Bank Ghana Ltd offers the following Internet banking products and services to its customers.

**Bill Payment**

Give customers convenient, safe, and reliable access to pay their bills online – 24/7. Bill Payment can be integrated with their Internet Banking platform, providing a seamless single-sign-on user experience, or it can be offered independent of any Internet banking product or data host. It offers customers good funds or risk-based settlement from a variety of third-party disbursement partners.

**Business Banking**

Provide a wide range of online tools specifically designed for their customers’ small business needs. Solutions include a variety of cash management capabilities such as Business Bill Pay, Automatic Clearing House (ACH) Origination and Account to Account transfers and more. They deliver a complete solution with exceptional reliability and high-level security to increase operational efficiencies for their business customers.

**Lending**

Offer customers the ability to apply for loans online. It helps them to make immediate loan decisions and give them an on-the-spot response. Their interactive loan decisions are
based on their financial institution’s own decision criteria and the applicant’s real-time credit bureau data at all major credit bureaus.

**Imaging**

Provide customers fast, easy and secure electronic access to their cheque images and statements when it is convenient for them from home or office.

**Account Alerts**

Give the bank the opportunity to notify their customers with real-time email account alerts. Customers define real-time, “tell me when” alerts that notify them when a cheque clears an account; an account balance threshold is met; and/or a specified transaction activity occurs. This solution is the perfect add-on to their Internet banking solution, enabling the bank to truly leverage their 24/7 online banking channel.

**Account to Account Transfers**

Become the online hub for all their customers’ financial relationships. With their Account to Account (A2A) Transfer solution, offer account holders the ability to move money between banks and accounts at other financial institution. The result is that customers leverage their online banking solution as the central, trusted service for managing all their financial relationships.

**Account Opening & Funding**

Provide an automated online account opening and funding process for new accounts. Automating real-time account opening and funding allow customers to lower account opening costs by minimizing costly manual processes and making products and services available to consumers 24/7. The net result to your financial institution is the reduction of weeks of processing time down to minutes!

**Marketing Campaign Manager**

Create, control, and track targeted marketing campaigns within Merchant Bank Internet Banking site. Display marketing ads and text messages that are tightly integrated into their website design and/or Internet banking. Create with easy-to-use administrative tools, control with intelligent targeting rule sets, and track the results with up-to-the-minute reporting tools.
Secure Messaging

Communicate securely with their customers without fear of interception by hackers or third-party e-mail services. Customers can send a secure SSL-encrypted message that can be stored and answered in Merchant Bank Internet banking administrative site, enabling customers to send their questions and other communications containing sensitive data, such as account numbers and balances (Source: Bank’s Website).

4.2 BRIEF OVERVIEW OF NORDEA BANK SWEDEN AND ITS INTERNET BANKING PRODUCTS AND SERVICES

Nordea is the largest financial company in the Nordic region with over 30,000 employees. The group includes leading banks in Sweden, Finland, Denmark and Norway (Swedish Bankers’ Association, March 2010).

Nordea Bank Sweden is one of the major banks in Sweden. Their customers are served through a nationwide distribution network of some 260 branch offices and service outlets, supplemented by an extensive network of bill payment and cash dispensing ATMs. In addition, customers have since long had access to an appreciated telephone bank and PC/Internet bank system permitting them to use a wide range of services.

The bank’s retail operations provide a complete range of financial services and products for a broad circle of private individuals, companies and institutions as well as the public sector (Source: Bank’s Website).

Nordea bank Sweden provides a wide range of Internet banking products and services to their numerous customers and among them are listed below.

Transfer between your own accounts

This enables a customer to send amounts between his/her own accounts in Nordea supposing that customer has more than one account with the bank.

Transfer to other accounts in Nordea and other banks

This enables customers to send amounts to other accounts in Nordea and to accounts in other banks.

Cards

Here you can see all purchases and cash withdrawals made with your card. If you have a credit card, i.e. pay purchases against invoice, you can check that the payment has been
booked and also how much will be payable next time. You can also block cards, order new codes, apply for cards and make secure card payments.

**Funds**

Here you can buy, sell and transfer fund shares. You can also change/start new monthly savings. As support for your fund transactions there are facilities in the form of basic advice on funds, risk analysis tools, calculations etc.

**Securities**

Here you find information on the bank’s various securities’ services. You can also see current offers, check rate/prices and financial news in Market information.

**Pensions and Life Insurance**

Here you can see the conditions and value of your pension and life insurance agreement(s). You can personally influence the value trend by making changes and transfers in the funds. For your assistance, you will find news and information as well as tools for funds, pensions and life insurance.

**Loans**

You can apply for loans, linking interest to a fixed-rate period and register/deregister for e-loan notification.

**Security and Integrity**

Under this, you can read more about Internet security and how you can protect your computer. You also get information on various types of threat such as phishing, trojans and spy programs. You can also read about the bank’s various methods for logging on and signing off (Source: Bank’s Brochure).

### 4.3 DISCUSSIONS AND ANALYSIS OF DATA COLLECTED FROM INTERNET BANKING CUSTOMERS FROM GHANA AND SWEDEN

The following summarizes the data that were collected from our respondents. We administered 35 questionnaires each to selected customers of both Merchant Bank Ghana Ltd and Nordea Bank Sweden giving a total of 70 questionnaires out of which 30 respondents who are customers of Merchant Bank Ghana Ltd answered and 25 respondents who are customers of Nordea Bank Ghana Ltd also answered. The following demonstrates the summary of the data collected.
In general, there were 55 respondents from both banks. 39 respondents representing 71% were males and 16 respondents representing 29% were females.

Out of the 55 respondents, 30 of them representing 55% were customers of Merchant Bank Ghana Ltd and 25 of them representing 45% were customers of Nordea Bank Sweden.
Respondents were from diverse occupational background. Out of the 55 respondents, 7 representing 13% were government/public sector employees; 21 representing 38% were employed by the private sector; 4 representing 7% were self-employed whilst 23 representing 42% were from other occupational background with most of them being students in the tertiary level.

In deciding on adopting Internet banking service, out of all the 55 respondents in both countries, we realized that “Friends” were the highest contributing factor in each country with as much as 23 respondents representing 42% who claimed that their decision was mostly influenced by their friends. 16 representing 29% had other reasons such as personal need to adopt Internet banking. 13 representing 24% of the respondents were more influenced by the media whilst only 3 representing 5% of the respondents were
influenced by family. Thus from our research, people are least likely to be influenced by family to adopt Internet banking whilst friends have that powerful influence.

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20 years old</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>20 - 29 years old</td>
<td>39</td>
<td>71%</td>
</tr>
<tr>
<td>30 - 39 years old</td>
<td>14</td>
<td>25%</td>
</tr>
<tr>
<td>40 - 49 years old</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>50 - 59 years old</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>60 years and above</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Figure 14: Age category of Respondents to the Questionnaires for both countries

From the above chart, it can be seen that the majority of the respondents were between 20 – 29 years old. Most of these respondents who fall under this age bracket were students in the tertiary level.

Figure 15: Number of daily responses to the Questionnaires for both countries
We grouped our research questionnaires into three different parts or themes namely *Perceived Usefulness, Perceived Ease of Use and Psychological Attachment*. We collected responses and found the averages of the responses on country basis and below is a table representing the averages we had from our analysis of the responses.

<table>
<thead>
<tr>
<th>Ghana</th>
<th></th>
<th>Sweden</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x</td>
<td>f</td>
<td>fx</td>
</tr>
<tr>
<td>Perceived</td>
<td>5</td>
<td>258</td>
<td>1290</td>
</tr>
<tr>
<td>Usefulness</td>
<td>4</td>
<td>161</td>
<td>644</td>
</tr>
<tr>
<td>Perceived</td>
<td>3</td>
<td>164</td>
<td>492</td>
</tr>
<tr>
<td>Usefulness</td>
<td>2</td>
<td>55</td>
<td>110</td>
</tr>
<tr>
<td>Perceived</td>
<td>1</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Usefulness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>690</td>
<td>2588</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived</td>
<td>5</td>
<td>149</td>
<td>745</td>
</tr>
<tr>
<td>Ease of Use</td>
<td>4</td>
<td>72</td>
<td>288</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>44</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>1219</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological</td>
<td>5</td>
<td>31</td>
<td>155</td>
</tr>
<tr>
<td>Attachment</td>
<td>4</td>
<td>22</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>20</td>
<td>60</td>
</tr>
</tbody>
</table>
Table 2: Comparison of averages of responses based on Perceived Usefulness, Perceived Ease of Use and Psychological Attachment under the Extended Technology Acceptance Model for Ghana and Sweden

Below is a summary of the averages used in the comparison of Ghana and Sweden based on the results from the above table.

<table>
<thead>
<tr>
<th></th>
<th>Ghana</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness</td>
<td>3.75</td>
<td>3.89</td>
</tr>
<tr>
<td>Perceived Ease of Use</td>
<td>4.06</td>
<td>4.09</td>
</tr>
<tr>
<td>Psychological Attachment</td>
<td>3.06</td>
<td>3.12</td>
</tr>
</tbody>
</table>

Table 3: Summary of comparison of averages of responses based on Perceived Usefulness, Perceived Ease of Use and Psychological Attachment under the Extended Technology Acceptance Model for Ghana and Sweden

Using the Extended Technology Acceptance Model, the above-mentioned factors have a positive correlation to Attitude Towards Usage (ATU). Thus, in computing our average for Attitude Towards Usage, we found the mean or average of Perceived Usefulness (PU), Perceived Ease of Use (PEoU) and Psychological Attachment (PA) averages.

Thus:

\[
\text{Attitude Towards Usage} = \frac{\text{PU} + \text{PEoU} + \text{PA}}{3}
\]

This is represented in the table below:
Table 4: Comparison of averages of Attitude Towards Usage of Internet banking for Ghana and Sweden

From the table above, we realized that the average attitude towards usage in Ghana is not very much different from the average attitude towards usage in Sweden.

In computing the Behavioural Intention of Internet banking adoption under the Extended Technology Acceptance Model, we had to find the average of the Attitude Towards Usage (ATU), Perceived Usefulness (PU) and Psychological Attachment (PA).

Thus:

\[
\text{Behavioural Intention} = \frac{(\text{ATU} + \text{PU} + \text{PA})}{3}
\]

This is represented in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Ghana</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behavioiral Intention</strong></td>
<td>3.48</td>
<td>3.59</td>
</tr>
</tbody>
</table>

Table 5: Comparison of averages of Behavioural Intention of Internet banking adoption for Ghana and Sweden

Results from all the above tables have been presented in the graph (bar chart) below to make a comparison between Ghana and Sweden with regard to Internet banking adoption behaviour. In the graph (bar chart) below, Ghana is represented by blue colour and Sweden by maroon (or red) colour.
The Behavioural Intention or the Intention to use translates to actual usage of Internet banking. As per our analysis of the responses, the average behavioural intention to use Internet banking in Ghana is 3.48 and that of Sweden is 3.57. There is therefore marginal or subtle difference in the intention to use Internet banking for both countries. This was quite surprising as we realized that the usage of Internet banking in Sweden in real terms was much higher than that of Ghana. Our deduction was that the huge difference in the number of users of Internet banking in Sweden compared to that of Ghana is not as a result of customers’ adoption behaviour but from other areas such as the banks’ marketing strategy of the Internet banking services.
Results’ Validation

Total Sample Case: 30 respondents from Ghana as against 25 from Sweden

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>Ghana</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness (PU)</td>
<td>3.89</td>
<td>3.75</td>
<td>0.14</td>
</tr>
<tr>
<td>Perceived Ease of Use (PEoU)</td>
<td>4.09</td>
<td>4.06</td>
<td>0.03</td>
</tr>
<tr>
<td>Psychological Attachment</td>
<td>3.12</td>
<td>3.06</td>
<td>0.06</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td></td>
<td></td>
<td><strong>0.23</strong></td>
</tr>
<tr>
<td>Average Attitude Towards Use</td>
<td>3.70</td>
<td>3.62</td>
<td>0.08</td>
</tr>
<tr>
<td>Behavioural Intention</td>
<td>3.57</td>
<td>3.48</td>
<td>0.09</td>
</tr>
</tbody>
</table>

*Table 6: Results’ Validation based on the whole responses from the 30 Respondents from Ghana as against the 25 Respondents from Sweden*

In order to validate our results, we also used the same number of respondents from each country to check whether the marginal or subtle difference between the customers’ adoption behaviour was as a result of our data size or not. Thus, we selected the first 25 respondents from Ghana to compare with that of Sweden. The result is shown below:
### Equal Number of Respondents’ Test Case: 25 respondents from Ghana as against 25 from Sweden

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>Ghana</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness (PU)</td>
<td>3.89</td>
<td>3.81</td>
<td>0.08</td>
</tr>
<tr>
<td>Perceived Ease of Use (PEoU)</td>
<td>4.09</td>
<td>4.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Psychological Attachment</td>
<td>3.12</td>
<td>3.07</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td></td>
<td></td>
<td><strong>0.18</strong></td>
</tr>
<tr>
<td>Average Attitude Towards Use</td>
<td>3.70</td>
<td>3.64</td>
<td>0.06</td>
</tr>
<tr>
<td>Behavioural Intention</td>
<td>3.57</td>
<td>3.51</td>
<td>0.06</td>
</tr>
</tbody>
</table>

*Table 7: Results’ Validation based on responses from 25 Respondents each from Ghana and Sweden*
Original Case: 30 respondents from Ghana as against 25 from Sweden in a bar chart

Figure 17: Bar Chart showing the comparison between Ghana and Sweden with regard to Internet banking adoption behaviour under the Extended Technology Acceptance Model based on 30 Respondents from Ghana as against 25 from Sweden
25 Respondents’ Case: 25 respondents from Ghana as against 25 from Sweden in a bar chart

![Bar Chart](image-url)

*Figure 18: Bar Chart showing the comparison between Ghana and Sweden with regard to Internet banking adoption behaviour under the Extended Technology Acceptance Model based on 25 Respondents each from Ghana and Sweden*

We also decided to use equal number of respondents by ignoring the last 5 Ghanaian respondents. In all, we realized that in both cases the differences between Ghana and Sweden in adoption behaviour still remained marginal or subtle. As a result, we think that since the difference is marginal or subtle, other factors such as marketing of Internet banking service by the banks to their customers in Ghana should be the focus. We identified this from the responses we received from Merchant Bank Ghana Limited.

### 4.4 DISCUSSIONS AND ANALYSIS OF DATA COLLECTED FROM MERCHANT BANK GHANA LTD AND NORDEA BANK SWEDEN.

These are the responses we received to the Interview Questions we asked the two banks selected for this study.
• What are the Internet banking products and services that your bank is providing to its customers?

**GHANA:** In Ghana our respondent answered that they provide these Internet banking products and services to their customers. These are bill payment, Business Banking, Lending, Imaging, Account Alerts, Account to Account Transfers, Account Opening and Funding, Marketing Campaign Manager, Secure Messaging, etc.

**SWEDEN:** In Sweden our respondent answered that they provide these Internet banking products and services. These are Transfer between your own accounts, Transfer to other accounts in Nordea and other banks, Cards, Funds, Securities, Pensions and Life Insurance, Loans, Security and Integrity, etc.

In both countries, our respondents confirmed the information we got from their websites and brochures concerning their Internet banking products and services. These products and services have been explained at the beginning of this chapter.

• Is the Internet banking adoption rate at your bank higher or lower compared to total number of customers?

**GHANA:** Our respondent from Merchant Bank Ghana Ltd answered that the adoption rate is quite low. According to the respondent, about 10% of customers use their Internet banking services.

**SWEDEN:** Our respondent from Nordea Bank Sweden answered that the adoption rate is very high. Even though, the respondent did not disclose the actual percentage of customers who are currently using Internet banking, the respondent mentioned that it is very high compared to the total number of customers.

• What are some of the benefits that your bank derives from providing Internet banking products and services?

**GHANA:** According to our respondent from Merchant Bank Ghana Ltd, Internet banking has helped to reduce pressure in their banking halls. The respondent mentioned that prior to the introduction of this type of banking, there were always long queues in their banking halls but now there has been less pressure in these banking halls. Also, according to the respondent, since the introduction of Internet banking, there has been high customer satisfaction and retention.

**SWEDEN:** Our respondent from Nordea Bank Sweden mentioned that Internet banking has helped to reduce queues in their banking halls because the Internet banking allows
customers to carry out their banking activities directly from their computers at a time that suits them best. Through the Internet banking, they can get an overview of their accounts, payments, funds, loans and insurance in Nordea at their own convenience at home or the office so most prefer doing that instead of coming to the banking halls.

- What kinds of feedbacks/responses does your bank receive from customers concerning the Internet banking services?

**GHANA:** According to our respondent from Merchant Bank Ghana Ltd, some of the feedbacks they receive from their customers concerning Internet banking services are slow Internet access rate and too much downtime. Customers sometimes complain that they are not able to access the Internet banking system due to frequent downtime. However, the respondent mentioned that some of these problems are attributed to the poor services provided by their Internet Service Providers.

**SWEDEN:** According to our respondent from Nordea Bank Sweden, the bank does not receive many complaints from their customers concerning their Internet banking services because the system is always in good order. The respondent mentioned that overall customers who use the Internet banking are satisfied with the service.

- What are some of the challenges your bank is facing in providing Internet banking services?

**GHANA:** According to our respondent from Ghana, unreliable Internet access in Ghana and low Internet skills of customers are some of the problems they face in the delivery of Internet banking services. According to our respondent, there is also limited access to Internet use in Ghana and this can also be an impediment to the growth of Internet banking. The respondent also mentioned that security issues are also one of their concerns because of the rise of Internet fraud in Ghana.

**SWEDEN:** Our respondent from Sweden cited high cost of technological equipments for Internet banking. According to our respondent, since they want their service to be in good order they always try to get the best and the most sophisticated equipments and that is costly. However, our respondent pinpointed that the advantages they derive from Internet banking far outweighs that of the disadvantages so even though the equipments are expensive it is not a major problem.

From the above responses from both respondents from Ghana and Sweden, we can see that most of them are similar. The clear differences in the responses emanate from the Internet banking adoption rate and the kinds of feedbacks the two banks receive from their customers. Whilst in Merchant Bank Ghana Ltd the adoption rate is low, it is very high in Nordea Bank Sweden. Also, Nordea Bank Sweden does not receive many complaints from their customers concerning their Internet banking services because the system is constantly in good order but in Merchant Bank Ghana Ltd, there are a lot of
feedbacks they get from their customers especially those bordering on slow Internet access rate and frequent downtime. Our respondent from Ghana however mentioned that for the bank to increase the number of their Internet banking customers, then, they have to do a lot especially in marketing of these Internet banking products and services. According to the respondent, marketing of Internet banking products and services will help attract more customers.
5.0 INTRODUCTION

In the preceding chapter, the research findings were discussed and the analysis done. Having done a thorough discussion of those findings and analyzing the results, the researchers have arrived at certain meaningful and comprehensive conclusions.

This chapter therefore presents the conclusions drawn by the researchers. The chapter also outlines recommendations being put forward by the researchers. Limitations of the study and suggestions for further research or studies are also presented in this chapter.

5.1 CONCLUSIONS

From our research, we conclude that there is only a marginal or subtle difference in the adoption behaviour of Internet banking customers in Ghana and Sweden. However, it remains a fact that there are more Internet banking customers in Sweden than in Ghana and this is due to factors other than customers’ adoption behaviour as the study revealed.

Research questions and responses:

i. Are there any differences in customers’ adoption behaviour of Internet banking between Ghana and Sweden?

There is only a marginal or subtle difference in customers’ adoption behaviour in Internet banking between Ghana and Sweden. Therefore, the number of Internet banking customers between Ghana and Sweden differ because of factors other than customers’ adoption behaviour.

ii. What accounts for such differences in the adoption behaviour of Internet banking between Ghana and Sweden if any?

Internet banking adoption behaviour in Ghana is virtually similar to that of Sweden. The difference is only marginal or subtle and that renders it inconspicuous between the two countries. We are of the conviction that energies should rather be focused on other areas that cause the differences in the number of users or subscribers of Internet banking other than adoption behaviour. Such areas include marketing of the Internet banking service by banks in Ghana as though
the service currently exists, it is not so popular. It can also be due to the fact that
Internet banking service started not long ago in Ghana as compared to that of
Sweden so the number of users may differ significantly but not the adoption
behaviour. This assertion was also corroborated by the responses we received
from our respondent from Merchant Bank Ghana Ltd.

5.2 RECOMMENDATIONS

The following are the recommendations being put forward by the researchers based on
the conclusions of the whole study.

- Marketing of Internet banking products and services should be intensified in Ghana
  so as to increase the number of subscribers of these products and services since some
  of the customers of the banks are not even aware of the existence of this type of
  banking because it is new in Ghana.

- The banks in Ghana must also invest heavily in Internet banking since it has been
  observed that the advantages of this system of banking far outweigh its
  disadvantages. Sweden did the same by investing substantially when Internet banking
  was first introduced into the country and now the country is reaping the full benefits
  of this system of banking.

- It is extremely important that banks in Ghana that are providing Internet banking
  products and services ensure that the privacy and security of their Internet banking
  customers are always protected. When this is done, customers will always feel
  confident in the system and will continue to use it.

Though these recommendations may not be exhaustive, it is hoped that by adopting
them, Merchant Bank Ghana Ltd and for that matter any other Ghanaian bank
providing or yet to provide Internet banking services stand to benefit substantially.
These recommendations when adopted could help these banks gradually rise to the
standard of the Internet banking in Sweden which would ultimately help the citizenry
of the country.
5.3 LIMITATIONS OF THE STUDY

The following are the limitations the researchers encountered in conducting this study.

- **Time Constraints**

  We had limited time for our research and this had an effect on the number of respondents to our questionnaire, and the results may or may not be the same where a large number of respondents are involved. Again, insufficient time restricted us to only focus on the customer side and not too much on the bank side, thus our research shows only adoption behaviour from the existing customer point of view based on the Extended Technology Acceptance Model which includes social influences and individual psychological attachment. Also, because of restricted time, we could not involve potential Internet banking customers in this study but only focused on existing Internet banking customers of those two banks we selected for this study. In addition to this, we had to constantly remind our respondents to fill the questionnaires which also took some time away.

- **Financial constraints**

  As a result of limited financial resources on our part, we adopted more of a closed-ended research questionnaire than an open-ended interview. This is because we could not travel to Ghana due to limited resources to personally interview customers. In view of that and to arrive at a more meaningful conclusion, we used the Google Internet Survey System to conduct our survey. Therefore, people's responses might not have been the same if we were able to have personal interviews with them.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

For furtherance and advancement of knowledge on Internet banking, the researchers have suggested the following that should be studied by other researchers.

- **Comparative study on Internet banking marketing between Ghana and Sweden**

  Our research focused on the customer perspective and therefore we believe that future research can be on comparative study on Internet banking marketing between Ghana and Sweden to see whether there is a difference in the way banks market their products in Ghana which has made it a bit unpopular than in Sweden.
• **Possibility of operating Internet or virtual banks only in Ghana**

At the time of this research, there was not an existence of an Internet or virtual bank only in Ghana and therefore we believe that it would do practitioners much good if there is a study on the possibility of operating an Internet or virtual bank only in Ghana just like Skandiabanken in Sweden which is a virtual bank only.

• **Internet banking diffusion rate in Ghana**

Internet banking diffusion rate in Ghana would help practitioners in Ghana to be able to access the market potential of the service and thus an academic research on this would be interesting for the banking industry in Ghana.

• **Impact of Internet banking on the businesses in Ghana**

It is important for businesses to know the risk and benefits of Internet banking on their profits, thus a study on the impact of Internet banking on the businesses in Ghana would be relevant.

• **Business value of Internet banking on trade finance**

Importers and exporters need access to a good financial base and the usage of Internet banking to process their transactions and guarantees can help improve their trade. We therefore believe that it would be imperative to do a study on business value of Internet banking on trade finance.
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Dear Respondent,

This questionnaire is aimed at gathering information on “Customers’ adoption behaviour in Internet banking.” We are making a comparative analysis in this area between Ghana our home country, and Sweden where we currently study. This is a research we are conducting as students of the School of Management, Blekinge Institute of Technology, Sweden and it is in partial fulfillment for the degree of Master of Science in Business Administration.

Please answer all the questions freely and candidly. This is purely an academic exercise and as such all responses will be treated with the strictest confidentiality. Thank you very much for your participation.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Male</td>
<td>Female</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
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</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
<td>30 – 39 years old</td>
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<td>40 – 49 years old</td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>60 years old and above</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Ghana</th>
<th>Sweden</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>High School</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Diploma</td>
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<tr>
<td></td>
<td>Bachelor</td>
</tr>
<tr>
<td></td>
<td>Masters</td>
</tr>
<tr>
<td></td>
<td>Gymnasium</td>
</tr>
<tr>
<td></td>
<td>Other, please specify………………………………..</td>
</tr>
</tbody>
</table>
Occupation

- Government/Public Sector employee
- Private Sector employee
- Self-employed
- Other, please specify…………………………..

1. Please show your opinions on usefulness of the following Internet banking services.

<table>
<thead>
<tr>
<th>Service</th>
<th>Not at all Useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account information and balance enquiry</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Electronic bill payments</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Funds transfers</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Loan application</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Generate summary reports of bank transactions</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Cheque book application and cancellation</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

2. Please indicate the extent to which the following criteria you considered in choosing your Internet banking.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Not at all Important</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiarity with the bank</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Ownership of the bank- Local/Foreign</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Size of the bank</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Reputation of the bank</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Variety of services offered by the bank</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
3. Please select the appropriate responses that best describe your perceptions of Internet banking.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th></th>
<th></th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet banking makes it easier for me to conduct my banking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>transactions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet banking allows me to manage my finances more</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>efficiently and effectively.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using Internet banking fits well with the way I like to manage</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>my finances.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using Internet banking requires a lot of mental effort.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Using Internet banking can be frustrating.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident over the security and privacy aspects of Internet</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>banking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information concerning my Internet banking transactions can be</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>tampered with by others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faster Internet access speed is important for Internet banking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. I am confident of using Internet banking

<table>
<thead>
<tr>
<th></th>
<th>Not at all Confident</th>
<th></th>
<th></th>
<th>Extremely Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>if I have only the online instructions for reference.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>even if there is no one around to guide me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>if I have just seen someone else using it before trying it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>if I have just the online</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
5. In this section, please select the responses that best describe how you feel about the presentation of Internet banking websites.

a) Where do you often access your Internet banking?

Home  Office  Mobile  Internet Café  Other, please specify…………………………

b) It is important that instructions on the websites are easy to read.

Strongly Disagree  Strongly Agree  
1  2  3  4  5

c) It is important that instructions on the websites are simple to understand.

Strongly Disagree  Strongly Agree  
1  2  3  4  5

d) It is important to have animations on the websites.

Strongly Disagree  Strongly Agree  
1  2  3  4  5

e) It is important for the websites to be entertaining.

Strongly Disagree  Strongly Agree  
1  2  3  4  5

f) It is important that the websites process my transactions promptly.

Strongly Disagree  Strongly Agree  
1  2  3  4  5

g) It is important that the website provides for communication with service personnel (via phone or email) if I have a problem.

Strongly Disagree  Strongly Agree  
1  2  3  4  5

h) It is important that websites' displays can be customized to my preferences.
i) It is important that the websites are interactive.

j) It is important that little time is required to connect to the websites.

k) It is important that the icons on website of the bank have close resemblance with the real bank.

6. My decision to adopt Internet banking was influenced by

   Friends
   Family
   Media
   Other, please specify………………………………………………

7. How likely would you use Internet banking if the bank charges

<table>
<thead>
<tr>
<th></th>
<th>Very Unlikely</th>
<th></th>
<th></th>
<th></th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>a flat fee per month for using Internet banking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>a flat fee per month plus a fee per transaction for using Internet banking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>a time-based usage fee for using Internet banking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>no fee for using Internet banking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX B: INTERVIEW GUIDE FOR BANKING STAFF

1. What are the Internet banking products and services that your bank is providing to its customers?

……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………

2. Is the Internet banking adoption rate at your bank higher or lower compared to total number of customers?

……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………

3. What are some of the benefits that your bank derives from providing Internet banking products and services?

……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………

4. What kinds of feedbacks/responses does your bank receive from customers concerning the Internet banking services?

……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………

5. What are some of the challenges your bank is facing in providing Internet banking services?

……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………