

**THE IMPACT OF INFORMATION TECHNOLOGY ON CUSTOMER  
SATISFACTION AT SOCIAL SECURITY AND NATIONAL INSURANCE TRUST**

**BY**

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## **ABSTRACT**

The importance of Information Technology in any organization in this modern day cannot be overemphasized. Information Technology plays vital roles in data entry, data processing and security, and information distribution. For an organization such as SSNIT, Information Technology is more than just a part of its operations. IT is needed to ensure that national pensions are administered with the highest form of integrity so that customers are duly satisfied during and after retirement. The primary aim of this research was to assess the impact of Information Technology on Customer satisfaction at SSNIT. 100 members of staff and management with 400 customers were interviewed through simple random sampling. A semi-structured questionnaire was developed to seek the views of the respondents on the impact of IT in helping them on their job at SSNIT and in processing their social security as customers.

The findings were that IT does not only facilitate the work of the staff and management, but it also increases their efficiency and effectiveness in discharging their duties. Information Technology has reduced complaints of impersonation, identity theft, wrong payments as well as many other incidences. Customers also praised the role of IT in assisting them know more about their social security unlike in the past when they were in the dark over their contributions.

One major recommendation was that SSNIT should use this same Information Technology or acquire more to improve the good works they are doing. They should also educate the public more on changes in their operations and help the public know the distinction between challenges caused by IT or government policies, since many people get confused with both.

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## **DEDICATION**

I dedicate this research work to my mother Miss Stella Maris Andoh. The thought of you gave me massive encouragement to give my all to this project. And to my best friend Kwaku Boateng Wiafe for your advice and encouragement, you gave me so much strength and hope thank you for everything. My brothers Hugh Tamakloe and Alhassan Vandyck you have been my best friends since childhood I love you all.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Insurance companies are investing an increasing proportion of IT budgets and resources on initiatives collectively described as IT transformation. And with these transformation efforts come a number of challenges around security, data management and new customer interaction channels. Around the world, a recent study on more than 1,100 executives, including CIOs, IT vice presidents, and IT directors found that the top five-major areas that present the most pressing challenge for Information Technology professionals include;

Enhancing and protecting business value:- Aligning and integrating IT risk management and business continuity capabilities with broader, long-term business strategy,Cybersecurity:- Managing and strengthening security and privacy for the organizations' systems and data is now a top priority across all industries,Data classification:- Effectively organizing, managing, and securing growing amounts of data within the organization, IT asset and data management:- Improving data and information governance programs, driven by the growing use of mobile devices and applications and the continued integration of cloud computing into IT strategy and processes,Mobile platforms and social media:- Incorporating secure, integrated systems for mobile commerce, devices, etc., and addressing social media safeguards and strategy within the organization. These are challenges deemed global and therefore can affect any organization. It is therefore the responsibility of every organization to ensure that the right systems are put in-place to prevent cyber-theft and other forms of security breaches that can result in customers losing their life fortunes in an important industry such as the insurance industry. While trying to ensure the safety of customer investments, insurance companies must also ensure that their customers are satisfied and are

provided highly resourceful services. Sawyer, Ebrahimi, and Luk (2003) reveal in their study done in Hong Kong and Nigeria respectively that there exist coexistence between perceived strategic uncertainty, scanning of environment, use of information source, and organizational performance.

Customer satisfaction also comes with enormous benefits to the insurance industry in general and to Social Security and National Insurance Trust in particular. Proper institution of customer service processes will enable the organization gain customer loyalty and respond to customer needs and feedback quickly and collaboratively. It will also provide clear visibility into enabling management identify which customers are dissatisfied and why, what actions have been or need to be taken and what appropriate responses have to be delivered. Furthermore it will facilitate concrete and actionable suggestions for improving performance, either overall or by segments. The bonding relationships between customers and organizations are hinged on trust which is aimed at achieving overall positive outcomes, and thus higher levels of trust and commitment in turn are attached with higher customer retention level, and this brings about increased organizational performance (Botha & Van Rensburg, 2010; Read, 2009).

The SSNIT Pension Scheme is Ghana's foremost pension scheme and is a social insurance scheme providing income protection for workers in both government and private sectors as well as for those in the informal sector (who voluntarily choose to join). These income earners, having signed on to the scheme, together with their employers, contribute 17.5 per cent of their declared monthly incomes to a common fund, the Social Security Fund. Contributions and returns on investments so received into the fund are then used to provide for members who fall due for benefits as prescribed by PNDC Law 247 (the legal framework by which the scheme operates) and general costs incurred in administering the scheme.

In return, contributors are rewarded with life-long part replacement of their lost incomes in the form of monthly guaranteed pensions when they grow old or are declared permanently incapacitated (by qualified health personnel) and in both cases, are unable to work to earn incomes anymore. However, one-time (lump sum) payments are made to dependents of members who die, while still working and pensioners who die before the age of 72. For now, it is clear that through SSNIT's financial contributions to the National Health Insurance Scheme (NHIS), active contributors and SSNIT pensioners can enjoy an additional benefit from free medical care at designated NHIS health facilities.

## **1.2 Statement of the Problem**

Identifying delays in the processing and payment of pensions is a serious drawback to the effective administration of the SSNIT pension scheme. First, it must be remembered that the scheme, being national in character, has a large membership (of over one million), with many having almost similar biological and financial data, i.e. names ,gender, dates of birth, parents' names, home towns, and income levels. Some have a combination of some of these data and work at the same workplaces at the same time and many other conflicting information. Again, it takes a long period of membership (except in some cases of death before retirement and invalidity), averagely 20 years, for one to qualify to access pensions, a period within which a lot of changes could have occurred in the life of a contributor. A combination of these factors demand that the information SSNIT has on the individual member at any point in time should be nothing but accurate and complete to enable prompt payment of benefits at the end of the customer's period of contribution.

In 2002, SSNIT unveiled a strategic plan, in which it sought to address the problem. It tasked itself to reduce the time it took to process pensions from 46 days to 21, by the end of the plan

period in 2006. To enable it meet this target, it introduced a number of measures, including cleaning up of data on contributors who were 54 years and above, mass distribution of contributors' statements of account, re-focusing its field operations to update of members' records (rather than collection of contributions from employers) and improving its information and communication technology (ICT) system. It also re-engineered its claim processing procedures through the introduction of information technology.

In many industries, firms have found opportunities to use Information Technology to reduce costs, improve quality and increase value to customers (Brian and Peffers, 2009). Recently, there have been many claims that investments in IT can improve a firm's competitive position or allow a firm to become more vulnerable to competitive forces (Rockart, B.R. et al).

Various institutions are embarking on an aggressive drive to implement IT facilities to supplement and in some cases to revolutionize their operations. In spite of all these investments, there are divided opinions as to the benefits these technologies are having on the end users. Little has also been done to ascertain the relevance of these investments to customer satisfaction in these organizations. Customers of SSNIT are also not aware of certain vital extended services employed by SSNIT using Information Technology, and therefore have to troop to the office on daily basis to enquire about simple things which they could know by just a simple phone call or by the use an online service. The purpose of this research is therefore to examine the impact that Information and Communication Technology is having on customer satisfaction at SSNIT.

### **1.3 Objectives of the Study**

The primary aim of this research is to investigate the impact of Information Technology on customer satisfaction at the Social Security and National Insurance Trust. Other salient objectives will include;

1. To determine the extent to which Information Technology has contributed to staff performance in delivering quality services to customers.
2. To determine the level of customer satisfaction with SSNIT's Information Technology services.
3. To examine customer assessment of Information Technology use and their interaction with staff of SSNIT.
4. To determine the Impact of Information Technology on customer satisfaction at SSNIT.

### **1.4 Research Questions**

1. Does the use of Information Technology positively affect staff performance in delivering quality customer services at SSNIT?
2. What is the level of reliability and availability of SSNIT Information Technology services to their customers?
3. How satisfied are customers of SSNIT with the processes involved in the processing of their social security benefits?

### **1.5 Scope and Limitations of the Study**

Regarding the scope of this project, every material presented in this study will be limited to the impact of information technology on customer satisfaction at SSNIT. The Social Security and National Insurance Trust has 50 branches in the nation. This study will focus on the Kumasi Area of the institution, which has 8 branches, due to limited time and resources. The proximity and time period allocated to this study did not allow an extensive and detailed research into the topic. In spite of these limitations, it is hoped that this work would provide very useful insights into the topic. Limited time is identified as the main cause of these limitations. Nonetheless, the research will be conducted in such a manner that the researcher's objective - the impact of information technology on customer satisfaction at SSNIT - will not be significantly affected. Conscious efforts would be made to gather all relevant information.

### **1.6 Significance of the Study**

Advancement in technology has been a source of operational breakthrough for many large organizations especially when it comes to managing large amount of data. This study offers tremendous help to many companies especially the Management and Board of Directors of SSNIT. This study aids management in understanding the extent to which information technology has contributed to the timely, effective and efficient delivery of service to customers and enhancement of staff performance in the organization.

This project also adds to the existing literature on the subject of investigation into the impact of information technology on customer satisfaction at SSNIT in Ghana, as well as serves as a source of reference for further research in this subject area. Additionally, where the general

public is concerned, the project will keep them up to date on issues regarding this particular subject.

### **1.7 Organization of the Study**

This study is divided into five main chapters for the purpose of easy undertaking of the research and for standardization.

The first chapter which is the Introduction provides a detailed background to the study, the problem statement, research objectives, and the significance of the study, scope, limitation and organization of the study.

The Chapter One is followed by chapter two. The Chapter Two is the Literature Review. The literature review provides the detailed knowledge, conceptual and theoretical framework for undertaking the study. Relevant areas such as the importance of technology on service delivery, the measurement of customer satisfaction, etc. are covered in this chapter.

The Chapter Three which is the Methodology focuses on methods and techniques used in gathering and analyzing relevant data. The study population, the sample size, research instruments used, tools used in data collection and analysis, constraints and limitations of the research work are covered in this chapter

At the heart of this study is Chapter Four. The chapter four is the Data Analysis and Discussion of findings. This chapter gives a detailed analysis of the data gathered.

The study is climaxed by the Chapter Five which is the Summary of Findings, Conclusion and Recommendations. This chapter provides a summary to the findings, the conclusion to the findings and recommendations for advancement and further studies.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the basic concepts of pension scheme and information technology and establishes the analytical framework that has been conducted on impact of information technology on customer satisfaction in some institutions around the world. This review is done in order to identify the gap in the research that this study is trying to address.

This chapter which is a review of relevant related literature provides the theoretical framework through understanding of key concepts under which this study has been carried out.

According to the American Psychological Association (APA, 2016) a theory is a coherent group of tested general propositions commonly considered as correct and can be used as a principle of explaining and predicting a class of phenomena. Ennis (1999) describes theoretical framework as a structure that identifies and describes the major elements, variables or constructs that are helpful in organizing the study. These theories help the researcher to hypothesis, understand, or give meaning to the relationships among the elements that influence, affect, or predict the events or specific outcome.

In undertaking this review, various theories and concepts regarding the Social Security insurance, the history and objective of social security, the use of Information Technology in the administration of Social Security and its impact on customer satisfaction have been thoroughly considered.

## **2.2 The Use of Information Technology in SSNIT Service Delivery**

In an article written by Butt (2015), a researcher and an IT consultant, it is quite impossible to attain long term business success without leveraging the benefit of Information Technology in the digital age. Information technology solutions continue to increase productivity, efficiency and effectiveness of businesses all of which culminate in the overall satisfaction of the customer. Technology breakthrough in terms of information technology has provided many organizations a high impetus for efficient time and quality service delivery (Butt, 2015). The ability to provide quality service delivery using information technology depends on the ease of operation and adaptability of both staff and clients to the available technology.

According to SSNIT annual report in 2014, the Social Security and National Insurance Trust in Ghana offers a range of service options to customers from the date of enrolment until retirement, death or disability. The ultimate objective of all this service is to provide income security to its clients after retirement, when one becomes disabled, or to survivors after death. Evaluating the quality of service offers to customers at the various service options and branch offices is of paramount importance if management is to achieve its objective of providing stress free income security to clients (Zuppo and Colrain, 2015). The reason for the use of computer technology can best be understood by examining how it is used by businesses all over the world. The days of large file rooms, rows of filing cabinet and mailing of document is passing away. Digital version of document is stored on computer servers and storage devices. These documents become easily available to everyone in the organization regardless of their geographical location. Tremendous amount of historical data are stored economically and employees benefit from quick access to the document they need at any time (Butt, 2015).

In their aim to determine the antecedents of loyalty, several authors have looked at customer satisfaction and have shown the two concepts' close relationship (e.g. Jones and Sasser, 1995;

Sheth and Sisodia, 1999). Higher levels of customer satisfaction can lead to a reduction of the perceived benefits of alternative suppliers and hence to higher repurchase intentions (Anderson and Sullivan, 1993). In order to further emphasize this point, Anderson and Srinivasan (2003) claim that “a dissatisfied customer is more likely to search for information on alternatives and more likely to yield to competitor overtures than is a satisfied customer”. This is important to recognize the storing data is only beneficial if that data or information can be used effectively. Forward looking organizations use data in their strategic planning as well as effectual execution of that strategy. Profitability can easily be tracked over time with the use of IT. A company can also maximize return on investment; managers can track sales on daily bases allowing them to immediately reach to lower than expected numbers by boosting employee productivity or reducing rendering a service (Butt, 2015).

Organizations that use Information technology improve the way they design and manage customer relationships. CRM system capture every interaction a company has with a customer in which a more enriching experience is possible. The entire interaction of a customer from the point of purchasing an item to complaint helps the organization to effectively respond to customer complaints (Butt, 2015). John (2009) argued that in a digital age a great way to success is innovation. Innovation follows the path of doing something different, smarter or better that will make a positive difference in terms of value, quality or productivity by using emerging or proven technology of the world (John 2009). In the last two decades information technology has proven to be a major technological breakthrough for most organizations.

According to John (2009), the success of every business organization depends on certain factors such as accurate analysis choice of the right technology and commitment to the vision and mission of the organization. Researchers have shown that organizations that invest in technology and choose the path of innovation are able to boost their market share, financial

figures and over all competitiveness. Information Technology is the only technology that provides an organization with the opportunity to analyze specific data and plan their business journey accordingly. Information technology provides organizations with the tools to solve complex problems and plan for future growth of business.

Speed and accuracy are at the heart of making right decisions. Every successful organization goes through a comprehensive market research process which enables management to make right decisions. Market research can easily be done through online surveys, group discussions, forums, blogs using the World Wide Web (Butt, 2015). In his view, these online tools do not only provide real time response from potential audience but also to ensure accuracy of data by reducing the risk associated with human errors. At the heart of every business success is marketing which allow management is to pick out it target audience in order to observe their trend and needs. Marketing covers aspects of public relation, advertising, promotion and sales which subsequently impact on business growth. Many type of marketing can help you reach potential customers. Digital marketing is a modern phenomenon which allows an organization to promote its products or services all over the world. It is a term which generally includes many aspects such as search engine optimization (SEO) pay per click, blogging e-mail, short, SMEs, social media marketing and Smartphone app advertisement etc.

Satisfying customers at the highest level is a key to success which cannot be achieved without customers support process (Zuppo and Colrain, 2015). The success of organization depends on how it knows its customer need, trends, behaviors satisfaction level. Effective communication made possible by information technology is the best tool way to understand customer demands, problems and their solutions. Information technology makes it possible for organization to communicate with millions of potential and existing customers. Information technologies are through which customers and organization inter act without

going through the sun or the rain. Some of these channels' include e-mail, social media, webinar, online newsletter, and multimedia messaging through the Smartphone. Enterprise organizations normally use customer relation management systems to keep valuable data for understanding customer behavior and future needs.

According to Zuppo and Colrain (2015), reducing cost and efficient management of an organizations resource is crucial to a business. For medium and large organizations, it's quite hard for top management to manage all the resources manually. These resources include human financial and tangible resources.

### **2.3 Customer Satisfaction**

According to Jamal and Naser (2002), customer satisfaction can be measured by using indicators that include: very satisfied, meets expectations, and performance. By introducing user friendly solutions, through automation, managers are able to monitor their organization resource virtually everywhere in the world using their personal computer, laptop, tablets or smart phone. Further, when consumers perceive high control and fairness in the service exchange they are more likely to evaluate the service positively (Guchait et. al., 2011).

Riel et al. (2001) found that tacit, rather than explicit, knowledge management has a greater influence on customer satisfaction and behavioral intentions in a service encounter. They also identified user interface, core service and supplementary services as the crucial dimensions of e-service quality in the case of internet-enabled businesses. E-service quality can also be considered from the perspective of process, outcome and recovery quality (Collier and Bienstock, 2006). Self-service technology (SST) and call centers (customer service) are the other important research areas related to technology-enabled services. Depending on the

technology interface, SSTs can be categorized into the types of telephone, internet, interactive kiosks (e.g. ATM) and video/CD (Meuter et al., 2000). Consumer perceptions of service quality vary depending on the specific type of SST used (Curran and Meuter, 2005).

For call centers, dimensions used to judge quality are adaptiveness, assurance, offering of explanations, empathy, authority, educating customers and personalization (Burgers et al., 2000; Rafaeli et al., 2008). Besides that, customer feedback, customer focus and time taken to respond have been also used to measure service quality of call centers (Danaher and Gallagher, 1997; Dean, 2002, 2004). Fecikova (2004) stated that the key to the sustainability of an organization or company is the persistence of satisfaction perceived by internal and external customers. For this reason, the performance of the company is determined in part by the level of customer loyalty where customer loyalty is influenced by the (driven) customer satisfaction (Anderson et al., 1994; Bowen and Chen, 2001; Fornell et al., 1996).

Shirshendu Ganguli Sanjit Kumar Roy, (2011) found that “technology usage easiness and reliability” and “customer service” affects customer satisfaction positively and significantly. In fact provision of proper customer service shapes the consumer behavior patterns significantly. Our result also conforms to this fact as “customer service” dimension has relatively higher impact on customer satisfaction than “technology usage easiness and reliability”. We also found that customer satisfaction has a positive and significant impact on customer loyalty (Shirshendu Ganguli Sanjit Kumar Roy, (2011). Sulin Ba and Wayne C. Johansson (2008) also identified that perceived ease of use influences customer satisfaction through service value.

In order to improve customer satisfaction, companies are making greater use of IT tools in their internal business processes (Srinivasan et al., 2002). Managers consistently rank improvement in customer satisfaction as one of the prime motivations for making IT

development. A customer's intention to maintain a relationship with a company is dependent on his or her perception of the benefits of high-quality service that provides a continuous flow of value (Patterson et al., 2006). Service quality is one of the most important and widely investigated topics in services literature (Fassnacht and Koese, 2006; Zeithaml, 2000). The satisfaction and delivery quality may play a pivotal role in the consumer's cognitive appraisal including interest, joy, pride, dislike, enjoyment, and frustration (Parboteeah et al., 2009).

Customer satisfaction is directly related to trust, if the service is reliable, customers believe in the service and purchase repeatedly (Chiung-Ju and Hui-Ju, 2009). In general, it is a common belief that trust is connected with the capability to protect personal information. Thus, trust is always considered as the most important component of an e-commerce web site. Some empirical studies further report trust is greatly improved by security (Kim et al., 2010). Rathnam et al. (1995) show the significance of IT on customer satisfaction. Similarly, Karimi et al. (2001) report that companies with better IT development are effective to improve customer service and customer relationships. The nature of the service business is such that consumers may experience the effect of IT-enabled business processes flexibility and convenience directly.

#### **2.4 Impact of Information Technology on Customer Satisfaction**

Information technology set expectations of customers high. There's no better feeling than for a customer to have expectations exceeded. No business is immune to unhappy customers. In fact, even companies with the best customer service in the world will still lose up to 9% of their customers to competitors. Information technology provides customer feedback. Information technology strongly ensures customer loyalty. Information technology

significantly builds customer loyalty as it strives to empower and educate customers and also invests in a self-service support channel.

Information technology provides an interactive platform to customers to share their grievances and have their needs attended to on time and concisely. Information technology sets the stage for a two-way communication effort. For example, follow up with a customer after a business transaction proves to customers that the company wants to hear from them. By soliciting feedback and using that information to inform business decisions will find new ways to ensure business is relevant to customers and hopefully open new lines of profitable opportunity.

## **2.5 SSNIT Service Delivery**

### **2.5.1 Benefits Processing**

Currently, SSNIT has eliminated the manual processing of claims and proven to be very efficient in the various stages of processing and payment of benefits. The situation where a claimant's thumb print is taken in a Branch and transported to the Records Department for verification is a thing of the past.

Contributors pursuing their benefits are only required to provide mandatory information, such as the evidence of bank account details. If the one has been registered biometrically, his or her identity is verified instantaneously at the Branch using any of the finger prints/or face. This process is quite faster and for that matter is helping to prevent delays. It is even faster if contributors heed to the requirement to contact the nearest SSNIT Office three (3) months prior to their retirement dates for swift payment of benefits.

### **2.5.2 Customer Enquiries**

The customers of the Trust have been given a wide range of channels to enable them contact SSNIT easily for resolution of their concerns. These are the Customer Services Desks at the Branches, the Contact Centre, social media (Facebook), Biometric Terminal (for contributors and pensioners) and the SSNIT web portal.

Presently, customers can call the Contact Centre on SSNIT matters in the convenience of their home. Also, there are some employers who validate their Contribution Reports online and pay contributions at the bank (currently the UT Bank) without stepping foot at any SSNIT Office. The manual way of doing business at SSNIT is now a thing of the past.

### **2.5.3 Pension Administration**

The mandate of SSNIT has since 2010 been to manage the 1<sup>st</sup> Tier of the 3-Tier Pension Scheme. The 1<sup>st</sup> Tier is the mandatory National Basic Pension Scheme which is a social insurance scheme and so it is in line with SSNIT's mandate since its inception in 1972.

SSNIT has a total of 50 Branches and eight Area Offices, a total establishment of over 5,200 and an active membership of about 1.3 million. The Pension Payroll has over 150,000 pensioners who receive pensions at the end of every month. Countless number of dependants and nominees has also been paid Survivors' Lump Sum benefits owing to the death of their loved ones who were contributors to the SSNIT Scheme or had retired but have not exhausted the annuity/guaranteed period. The ability of SSNIT to operate effectively has been positively impacted by the automation project.

#### **2.5.4 SSNIT Benefits Computation**

The need for the public to be abreast with the computation of benefits under the SSNIT Scheme was amplified. Benefits computation under the SSNIT Scheme is based on certain parameters or variables stipulated by the Law. The SSNIT Pension Scheme according to the National Pension Act 2008 (Act 766) is a defined benefit scheme. There are expected or mandatory variables that will have to be considered in order to realize the defined benefit that a contributor will have to enjoy.

For efficiencies in such encounters as providing Social Security benefits, that is why the SSNIT strategic direction is always guiding the Trust towards achieving excellence in the way SSNIT does its business.

In achieving technological excellence in the work of a Pensions' Administrator, gaps are bound to be identified and these gaps are very necessary for the growth of the Pension Institution. Priorities are set out to deal with the impact of the gaps and high impact gaps addressed quickly.

#### **2.6 Conceptual Framework**

Information Technology has become the trend of modern business and scientific operations. Every organization and individual apply one technology or the other to get something done. It has therefore become impossible to run a major or any minor business operation without the use of any of these prevalent devices.

The focus of this research is to identify the impact that Information Technology is having on the operations of SSNIT and how satisfied customers are with the IT services. Almost every

year SSNIT introduces one or more IT services with the aim to improving their operations to provide satisfactory services to their customers. There is enormous literature on IT with major focus on its use in improving organizational operations. Little has been done on how customers in particular find the use of the IT which they apply in their dealings with the organizations.

This research has therefore taken that perspective to evaluate the impact that technology usage is having on customers and also to assess the extent to which staff and management of SSNIT also agree to the benefits of IT in fulfilling customer satisfaction. The major objective of this research is to evaluate customer satisfaction with SSNIT's IT and also how staff and management evaluate the use of IT in their operations. The demographics of both customers, staff and management working with SSNIT will be recorded against important variables such as their overall satisfaction with the use of IT as well as how useful they find IT in their operations. The observations by both customers and staff and management will be recorded using a questionnaire designed for this purpose.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 The Research Design**

The study employed exploratory research design to assess the impact of Information Technology on customer satisfaction at the Social Security and National Insurance Trust. The structure of the research methodology included: the design of questionnaires, collection of data through questionnaire administering, processing of the data collected, analysing the data and interpreting the data analysed to examine the impact that Information Technology is having on customer satisfaction at the various offices of SSNIT. This was carried out by collecting data from staff and customers of the organization.

#### **3.2 Sources of Data**

Both primary and secondary data were used in conducting the research.

##### **3.2.1 Primary Data**

Primary data is collected directly from the field by the researcher. It can be obtained through clinical trials, case-studies, through experiments and randomized controlled studies. This information can be analyzed by other experts who may decide to test the validity of the data by repeating the same experiment (Barker, 2012). Primary data is observed or collected directly from first hand-hand experience. Some examples include questionnaire, interview and observation.

Data utilized in this research constituted primary data collected through survey-structured questionnaires. Data for the study were collected through self-

administered questionnaires over a period of three weeks. Staff and customers of the organization were the respondents to these questionnaires.

This method was chosen because it helped to bring out the exact information needed for the specific purpose of the research work.

### **3.2.2 Secondary Data**

Saunders et al. (2009) defines secondary data as data used for a research project that were originally collected for some other purpose. Textbooks, thesis, articles, journals, web sites, magazines and newsletters from Social Security and National Insurance Trust were utilized for the secondary data collection. Data from the secondary source helped the researcher in retrieving information for the literature review on the topic. It also helped to identify how others have defined and measured key concepts and discovered how this research project is related to other studies.

### **3.3 Unit of Analysis**

The study is based on the examination of the impact of Information Technology on customer satisfaction at SSNIT. The sample units are the staff and customers of the organization. The response given by the staff represents their informed knowledge based on their evaluation of their work taking into consideration the use of Information Technology in attending to the needs of their clients. SSNIT has a standardized and up-to-date technology in all their branches nationwide. Customers' views are however not representative of the whole. The analysis is based on the individual views of the staff and management of SSNIT and customers that form the sample size.

### **3.4 Population**

Subjects for the study were staff and customers of Kumasi Area offices of the Social Security and National Insurance Trust in Ghana. Respondents were requested to state their perception of the issues under investigation by completing the questionnaire which was drawn using a five – point Likert-type scaling measurement of ‘Strongly Agree’, ‘Agree’, ‘Undecided’, ‘Disagree’, and ‘Strongly Disagree’. An equal number of surveys were handed out for each of the eight branches. The surveys were handed out randomly to the staff and customers, thus creating randomization.

The population of the study therefore consisted of staff and management from the 8 branches of SSNIT in the Kumasi Area offices in the Ashanti Region and the customers who contribute to SSNIT in these branches. The selection of these 8 branches out of the 50 branches of SSNIT nationwide will not affect the research work because of the apparent similarity in the operations of SSNIT within the country, among the staff and the services provided to the customer.

#### **3.4.1 Sample size**

The survey-structured questionnaire was administered to 100 respondents of staff belonging to the 8 branches which have 120 employees in total. A separate questionnaire was designed for customers in order to obtain their personal satisfaction of Information Technology employed in processing

their claims. A total of 400 customers accepted to respond to this questionnaire, considering a population of 52, 768.

The following statistical equation provided by Yamane (2006) was used in computing the sample sizes based on the fact that the study populations were 120 and 52, 768 for employees and customers respectively.

$$n = \frac{N}{1 + N(e)^2}$$

Where  $n$  = the desired sample size

$N$  = the population size

$e$  = the level of precision, usually set at 0.05

### **3.4.2 Sample Technique**

The convenient sampling technique was used in the administration of the questionnaire.

### **3.5 Data Collection Instrument**

The researcher used self-administered questionnaire to examine the impact of Information Technology on customer satisfaction at the Social Security and National Insurance Trust offices in the Kumasi Area. Two sets of questionnaires were designed each for customers and staff members of the branches. The questionnaires designed to make the purpose of the study successful after the results had been ascertained.

### **3.6 Administration of Instruments**

Data for the study were collected through self-administered questionnaires over a period of three weeks. After this period, the researcher returned to the offices to retrieve questionnaires and responses. The researcher explained the questions to the respondents thoroughly after copies of the questionnaire were given to them. The purpose of this was to help the respondents to understand the purpose of the research and to do away with suspicions, partialities and also to be able to provide their independent opinions on the questionnaire items given to them. The essence of validity and reliability of data was paramount to the researcher and she therefore ensured that the questions were appropriately formulated to minimize errors.

### **3.7 Data Analysis Technique**

The IBM Statistical Package for Social Sciences (SPSS) V19 Software was employed for exploratory factor analysis. Representation like frequency tables were used to ensure easy and quick interpretation of data. Responses were expressed using mean, standard deviation, variance, standard error and Chi-square test. Data from the completed questionnaire were checked for consistency. The items were grouped based on the responses given by the respondents and were coded for easy usage of the SPSS. Linear Regression Analysis, ANOVA and Ordinary Least Squares were employed to analyze the data. These methods were used because they are good instruments used to identify, compare, describe and reach a conclusion.

### **3.8 Organisational Profile of SSNIT**

The Management Information Systems (MIS) Division has served as the heart-beat of the institution, throughout its technological evolution. Changes in technology are one of the most closely watched indicators of long term economic prospects.

Before 1991, member data was captured on paper and organised in folders in various parts of the country. The management introduced the computerization of SSNIT operations in MSDOS co-incidentally called District Operating System (DOS). They ably guided the transformation of SSNIT operations in 1991, where the Branch Operating System (BOS) was introduced.

The revolutionary Human Resource Management System (HRMS) was introduced in 1992. In 1991, PNDC Law 247 was passed into Law. The onus fell on the MIS Division to incorporate the requirements of the law into SSNIT operations through the enhancement of the BOS. Through the history lessons and technological transformations, the gate keeper concept was introduced in 2010, giving birth to the Operational Business Suite (OBS) in 2013. In the months before September 2013, the biggest Wide Area Network (WAN) to be owned by an individual company was introduced. An overlay of that was a Data Centre (DC) which became the pride of Ghana. In the proceeding months “veloce” was achieved on the following: Contact Centre, Biometric Registration, Core Pension and the initiation of the full automation of most of the Departments under Mother SSNIT. A good seed has been planted for the future of the MIS Division. The focus was to create an inter-departmental synergy while implementing more smart solutions, using up-to-date technology, to the maximum benefit of all in SSNIT and the nation at large.

Plans are far advance by management of Social Security and National Insurance Trust (SSNIT) to introduce an Automated Transfer Machine (ATM) to all branches nationwide to provide quality service to its customers.

The introduction of the new Information Communication Technology (ICT) machine, in the form of ATM, which would enable contributors to transact business without going to SSNIT offices, would help curtail the challenges clients go through in their bid to access their data and pay monthly contributions. This means that contributors, after the new equipment have been installed, can access any information concerning their contribution and transact any business with SSNIT without any personal contact.

Again, members can also make payment via the machine without going through the normal procedure of going to the various branches and joining long queues. It would also offer pensioners the opportunity to access their pension benefits through mobile phone, e-zwich and other electronic means.

The introduction of this system would enhance the work of SSNIT as well as give customers opportunity to access contributions on the internet without going to their offices. Further new systems were installed as part of the transformational process. The system has features such as Wide Area Network (WAN), to be connected to all branches countrywide, with two backup system machines, one in Accra and the other in Koforidua, the capital of Eastern Region. It came out that the adoption of new technology is making it possible for SSNIT to process data faster, easily keep information up-to-date and to easily retrieve information.

In 2010, the Trust developed an ICT Strategic Plan designed to move the Trust gradually to a fully automated platform which will engender efficiency in the operational business of the Trust. The significant achievements made so far are seen in the areas of Customer Enquiries, Benefits Processing, Contract Payments, Human Resource and Payment/Collection of SSNIT Contributions.

### **3.8.1 Benefits Processing**

Currently, SSNIT has eliminated the manual processing of claims and proven to be very efficient in the various stages of processing and payment of benefits. The situation where a claimant's thumb print is taken in a Branch and transported to the Records Department for verification is a thing of the past.

Contributors pursuing their benefits are only required to provide mandatory information, such as the evidence of bank account details. If the one has been registered biometrically, his or her identity is verified instantaneously at the Branch using any of the finger prints/or face. This process is quite faster and for that matter is helping to prevent delays. It is even faster if contributors heed to the requirement to contact the nearest SSNIT Office three (3) months prior to their retirement dates for swift payment of benefits.

### **3.8.2 Pension Administration**

The mandate of SSNIT has since 2010 been to manage the 1<sup>st</sup> Tier of the 3-Tier Pension Scheme. The 1<sup>st</sup> Tier is the mandatory National Basic Pension Scheme which is a social insurance scheme and so it is in line with SSNIT's mandate since its inception in 1972.

SSNIT has a total of 50 Branches and eight Area Offices, a total establishment of over 5,200 and an active membership of about 1.3 million. The Pension Payroll has over 150,000 pensioners who receive pensions at the end of every month. Countless number of dependants and nominees has also been paid Survivors' Lump Sum benefits owing to the death of their loved ones who were contributors to the SSNIT Scheme or had retired but have not exhausted

the annuity/guaranteed period. The ability of SSNIT to cooperate effectively has been positively impacted by the automation project.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND DISCUSSION**

#### **4.0 Introduction**

The objective of this study was to assess the impact of information technology on customer satisfaction at the Social Security and National Insurance Trust. The researcher conducted a survey by means of questionnaire to collect information on customer, staff and management evaluation of the influence of information technology on the organisation. As stated earlier, a sample size of four hundred (400) customers and hundred (100) staff and management members within the 8 branches of the Ashanti Region were used for the study. The survey results are presented using Simple Linear Regression, following the sequence as it appeared in the questionnaire. The chapter also presents analysis and discussion of key factors raised in this research with respect to addressing the objectives in this thesis.

The presentation, discussion and analysis of data in this chapter are divided into three main sections: demographics (background data of respondents), the main data (presentation) and analysis and discussion of the data. All the questionnaires submitted were retrieved, giving a 100% response rate. Data collected were analysed using the Statistical Package for Social Scientists (SPSS). The presentation of the data in this research is done by way Ordinary Least Square and Simple Linear Regression.

## 4.1 Demographic Data

This covers the background information of respondents (both customers and staff of SSNIT in the Ashanti Region offices). It comprises of the age, gender, educational background and length of service. Table 4.1 and 4.2 present the responses of respondents' background data.

Table 4.1.1: Background data of customers

Sex of respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	260	65.0	65.0	65.0
Female	140	35.0	35.0	100.0
Total	400	100.0	100.0	

Age of respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20 – 25	20	5.0	5.0	5.0
26 – 30	92	23.0	23.0	28.0
31 – 40	164	41.0	41.0	69.0
41 and above	124	31.0	31.0	100.0
Total	400	100.0	100.0	

Educational level

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Masters	48	12.0	12.0	12.0
First Degree	152	38.0	38.0	50.0
Diploma	120	30.0	30.0	80.0
Secondary	64	16.0	16.0	96.0
Primary	4	1.0	1.0	97.0
Other	12	3.0	3.0	100.0
Total	400	100.0	100.0	

How long have you contributed to SSNIT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid < 10 years	132	33.0	33.0	33.0
10 – 20 years	136	34.0	34.0	67.0
More than 20 years	132	33.0	33.0	100.0
Total	400	100.0	100.0	

Profession / occupation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Public Servant	171	42.8	42.8	42.8
Private Sector	143	35.8	35.8	78.5
Informal Sector	86	21.5	21.5	100.0
Total	400	100.0	100.0	

How long have you contributed to SSNIT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid < 10 years	132	33.0	33.0	33.0
10 – 20 years	136	34.0	34.0	67.0
More than 20 years	132	33.0	33.0	100.0
Total	400	100.0	100.0	

Source: Fieldwork, 2016

From Table 4.1, 65% of the customers who responded to the questionnaire were males compared to 35% females. 5% of the respondents were aged between 20 and 25, 23% were aged between 26 and 30 and 41% and 31% were aged between 31 to 40 and 41 and above respectively. Forty-eight customers representing 12% were Masters' degree holders. 38% hold first degree and 30% hold diploma certificates. 16%, 1% and 3% were customers who hold various educations in secondary, primary and other qualifications respectively.

One hundred and seventy-one (42.8%) customers work in the public sector, 35.8% work in the private sector and 21.5% work in the informal sector. 33% of the respondents have contributed less than 10 years to SSNIT. 34% have contributed 10 to 20 years whereas another 33% have contributed to SSNIT for more than 20 years.

Table 4.1.2 Background data of staff and management

Sex of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	68	68.0	68.0	68.0

Female	32	32.0	32.0	100.0
Total	100	100.0	100.0	

#### Age of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
20 – 25	2	2.0	2.0	2.0
26 – 30	28	28.0	28.0	30.0
Valid 31 – 40	41	41.0	41.0	71.0
40 and above	29	29.0	29.0	100.0
Total	100	100.0	100.0	

#### Educational level

	Frequency	Percent	Valid Percent	Cumulative Percent
Masters	15	15.0	15.0	15.0
First Degree	58	58.0	58.0	73.0
Valid Diploma	23	23.0	23.0	96.0
None	4	4.0	4.0	100.0
Total	100	100.0	100.0	

#### How long have you worked with SSNIT

	Frequency	Percent	Valid Percent	Cumulative Percent
< 5 years	41	41.0	41.0	41.0
5 – 10 years	23	23.0	23.0	64.0
Valid 10 - 20 years	21	21.0	21.0	85.0
Over 20 years	15	15.0	15.0	100.0
Total	100	100.0	100.0	

#### Department / Unit

	Frequency	Percent	Valid Percent	Cumulative Percent
Accounts	8	8.0	8.0	8.0
Administration	11	11.0	11.0	19.0
Valid Benefits	16	16.0	16.0	35.0
Biometric	11	11.0	11.0	46.0
Compliance	14	14.0	14.0	60.0
Customer Care	9	9.0	9.0	69.0

Data Entry	12	12.0	12.0	81.0
MIS	11	11.0	11.0	92.0
Prosecution	6	6.0	6.0	98.0
Prosecutions	2	2.0	2.0	100.0
Total	100	100.0	100.0	

*Source: Fieldwork, 2016*

Out of the 100 members and staff who responded to the questionnaire, 68 were males whereas 32 were females. Two (2) of the staff were between 20 to 25 years whereas 28 were between 26 to 30 years. Forty-one of the respondents were between 31 to 41 years. Twenty-nine (29) of the final 100 were between 40 years and above. Fifteen (15) members of the staff and management who responded to the questionnaire were Masters' degree holders and 58 had first degree. Twenty-three (23) had diploma certificates and 4 people had other qualifications other than the above.

Forty-one of the staff and management had worked with SSNIT for less than 5 years. Twenty-three (23) had worked with the institution for between 5 to 10 years. Between 10 to 20 years, 21 have been employees of the organization and 15 people had worked with the institution for over 20 years. The 100 respondents worked with various units in the organization. The divisions are as follows; Accounts (8), Administration (11), Benefits (16), Biometric (11), Compliance (14), Customer Care (9), Data Entry (12), MIS (11) and Prosecution (8).

## **4.2 Customer Satisfaction**

### **4.2.1 Presentation and Analysis of Responses from Customers**

This section presents the main data related to the research questions of this study. An association was established through Regression analysis between the independent

(demographic) variables against major dependent variables (main questions in the questionnaire).

#### 4.2.2 Dependent Variables against Independent Variables of Customers

The customer satisfaction level at SSNIT can be measured by calculating the mean scores of —Overall Satisfaction with the Technology, Education level of respondent, Age of the respondents and how long the respondent has contributed to SSNIT, from the data collected from the customers of SSNIT. The results are as follows:

Table 4.2.2.1: Descriptive Statistics of Customers Included in the Sample(N=400)

#### Descriptive Statistics

	Mean	Std. Deviation	N
Overall I am satisfied with SSNIT's technology	1.82	.498	400
Age of respondent	2.98	.861	400
Educational level	2.68	1.201	400
How long have you contributed to SSNIT	2.00	.813	400

The mean score of customers overall satisfaction with SSNIT's Information Technology services is 1.82 which shows its significant impact on customers. It also shows that it is very difficult to ignore the influence of Information Technology in delivering quality services. The Age of Respondents mean score is 2.98 which indicates a high effect on the customer's response to the question. The age of the respondent directly influences the customers view on IT delivery which means its impact cannot be ignored. In the same way, Education level

(mean score 2.68) and how long the customer has contributed to SSNIT (mean score 2.00) also have positive influences on their satisfaction on IT services. The combinations of these data indicate a positive influence on customer satisfaction.

Table 4.2.2.2:Correlation Coefficients

		<b>Correlations</b>			
		Overall I am satisfied with SSNIT's technology	Age of respondent	Educational level	How long have you contributed to SSNIT
Pearson Correlation	Overall I am satisfied with SSNIT's technology	1.000	.132	-.029	-.074
	Age of respondent	.132	1.000	-.084	.673
	Educational level	-.029	-.084	1.000	-.041
	How long have you contributed to SSNIT	-.074	.673	-.041	1.000
Sig. (1-tailed)	Overall I am satisfied with SSNIT's technology	.	.004	.278	.069
	Age of respondent	.004	.	.047	.000
	Educational level	.278	.047	.	.206
	How long have you contributed to SSNIT	.069	.000	.206	.
N	Overall I am satisfied with SSNIT's technology	400	400	400	400
	Age of respondent	400	400	400	400
	Educational level	400	400	400	400
	How long have you contributed to SSNIT	400	400	400	400

In the above figure, the correlation analysis result showed the correlations are 0.8 or greater indicate strong positive linear relationship among them. To further study the effects of customer satisfaction is reflect due to information technology services and hospitality services in fast food industry, a regression analysis is conducted for dependent variable with independent variables.

Table 4.2.2.3:Model Summary

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.257 <sup>a</sup>	.066	.059	.483

a. Predictors: (Constant), How long have you contributed to SSNIT , Educational level, Age of respondent

b. Dependent Variable: Overall I am satisfied with SSNIT's technology

Table 4.2.1.3 shows that all independent variables such as, age of respondent, education level and how long have you worked with SSNIT absolutely correlated with the dependent variable 'Overall I am satisfied with SSNIT's Technology' service. The values of R<sup>2</sup> and adjusted R<sup>2</sup> are found as 0.257 and 0.059 respectively which shows that 25.7% variation on the customer overall satisfaction. Based on the results from the above analysis, all three factors are having significant influence in the overall customer satisfaction of SSNIT's Information Technology services.

Table 4.2.2.4: Analysis of Variance

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.539	3	2.180	9.331	.000 <sup>b</sup>
	Residual	92.501	396	.234		
	Total	99.040	399			

a. Dependent Variable: Overall I am satisfied with SSNIT's technology

b. Predictors: (Constant), How long have you contributed to SSNIT , Educational level, Age of respondent

Table 4.2.2.5: Coefficients of Variables

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	1.630	.107		15.293	.000	1.420	1.839						
	Age of respondent	.191	.038	.330	5.021	.000	.116	.266	.132	.245	.244	.544	1.837	
	Educational level	-.006	.020	-.014	-.287	.774	-.046	.034	-.029	-.014	-.014	.993	1.008	
	How long have you contributed to SSNIT	-.182	.040	-.297	-4.526	.000	-.261	-.103	-.074	-.222	-.220	.547	1.827	

a. Dependent Variable: Overall I am satisfied with SSNIT's technology

From the analysis results in above figure, both the multiple R(.330) and R2 statistic (.066) with value near to 1 indicate it is a good fit model. The model as a whole is also significant with great F-statistics(9.331) and Sig. F <0.01. Besides, the value of each parameter is ascertained to be significant with t-ratio being large in absolute value and Sig.<0.01. So, we are confident that there is a positive relationship in the independent variables that can be projected by customer satisfaction by the linear regression model.

Table 4.2.2.6: Collinearity Diagnostics

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Age of respondent	Educational level	How long have you contributed to SSNIT
1	1	3.735	1.000	.00	.00	.01	.01
	2	.183	4.512	.00	.02	.59	.10
	3	.056	8.201	.41	.05	.30	.55
	4	.026	12.001	.58	.93	.10	.35

a. Dependent Variable: Overall I am satisfied with SSNIT's technology

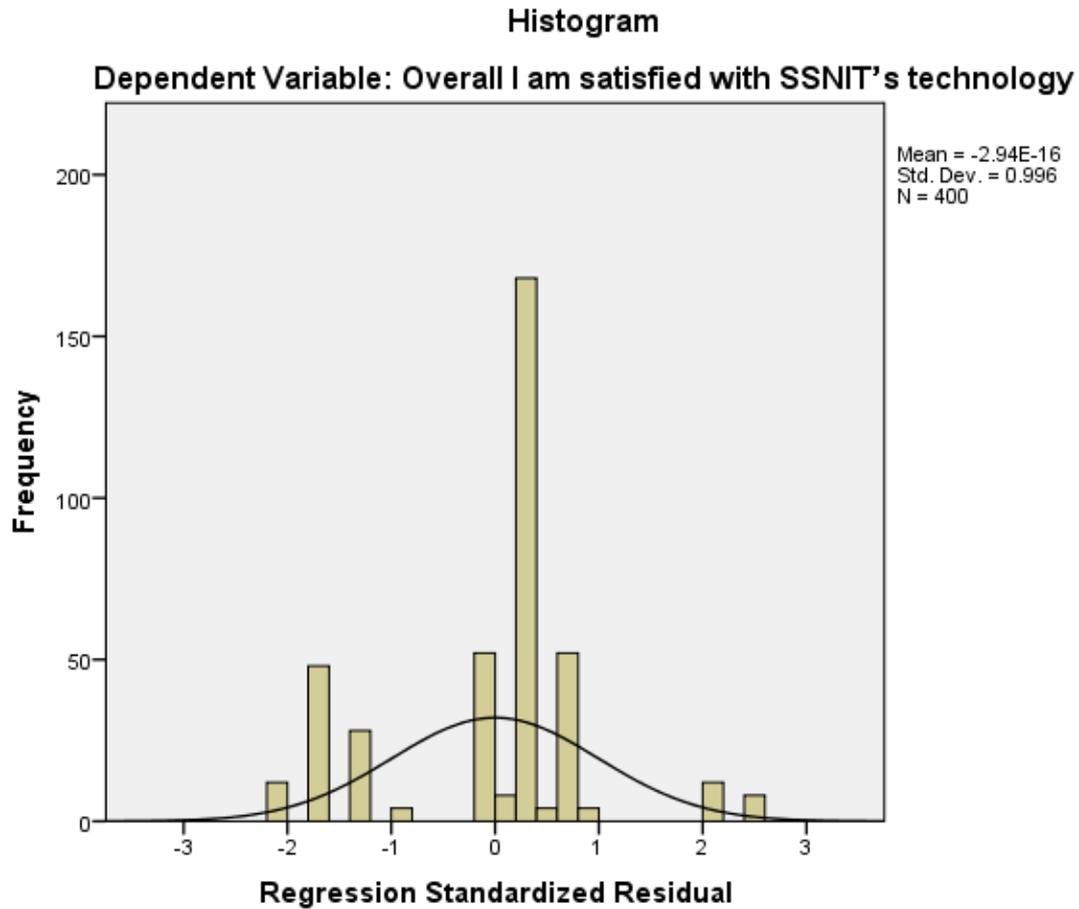
Table 4.2.2.7: Residual Statistics

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.45	2.02	1.82	.128	400
Std. Predicted Value	-2.927	1.555	.000	1.000	400
Standard Error of Predicted Value	.025	.098	.047	.013	400
Adjusted Predicted Value	1.46	2.02	1.82	.128	400
Residual	-1.013	1.187	.000	.481	400
Std. Residual	-2.096	2.457	.000	.996	400
Stud. Residual	-2.106	2.465	.000	1.001	400
Deleted Residual	-1.023	1.195	.000	.486	400
Stud. Deleted Residual	-2.115	2.481	.000	1.004	400
Mahal. Distance	.074	15.507	2.993	2.611	400
Cook's Distance	.000	.018	.002	.004	400
Centered Leverage Value	.000	.039	.008	.007	400

a. Dependent Variable: Overall I am satisfied with SSNIT's technology

Table 4.2.2.8: Histogram plot of Normal Distribution



From Table 4.2.2.8 it can be shown that the Histogram shows anormal distribution of the data.

### **4.3 Staff and Management Evaluation of IT Impact on Job Performance**

#### **4.3.1Presentation and Analysis of Responses from Staff and Management**

##### **4.3.1Dependent Variable against Independent Variables Analysis**

Table 4.3.1.1: Descriptive Statistics of Staff and Management Included in the Sample (N=100)

**Descriptive Statistics**

	Mean	Std. Deviation	N
Information Technology promotes effective customer service delivery	1.73	.750	100
Age of respondent	2.97	.810	100
Educational level	2.24	.986	100
How long have you worked with SSNIT	2.10	1.106	100

The mean score of staff and management opinion on Information Technology’s promotion of effective customer service delivery is 1.73 which shows its significant impact on customers. It also shows that it is very difficult to ignore the influence of Information Technology in delivering quality services. The Age of Respondents mean score is 2.97 which indicates a high effect on the staff and management response to the question. The age of the respondent directly influences the personnel view on IT delivery which means its impact cannot be ignored. In the same way, Education level (mean score 2.24) and how long the customer has contributed to SSNIT (mean score 2.10) also have positive influences on their performance. The combinations of these data indicate a positive influence work performance.

Table 4.3.1.2: Correlation of Dependent Variable against Independent Variables

**Correlations**

	Information Technology promotes effective customer service delivery	Age of respondent	Educational level	How long have you worked with SSNIT
Pearson Correlation	Information Technology promotes effective customer service delivery	1.000	.053	.348
	Age of respondent	.053	1.000	-.054
	Educational level	.348	-.054	1.000
	How long have you worked with SSNIT	.130	.680	.182
Sig. (1-tailed)	Information Technology promotes effective customer service delivery	.	.300	.000
	Age of respondent	.300	.	.296
	Educational level	.000	.296	.
	How long have you worked with SSNIT	.098	.000	.035
N	Information Technology promotes effective customer service delivery	100	100	100
	Age of respondent	100	100	100
	Educational level	100	100	100
	How long have you worked with SSNIT	100	100	100

In the above figure, the correlation analysis result showed the correlations are 0.8 or greater indicate strong positive linear relationship among them. If the effect of Information Technology on customer satisfaction score is high then age of respondent, education level of respondent and how long the staff or management has worked at SSNIT will be high too. To further study whether customer satisfaction promoted due to the effects of Information Technology services, the analysis is conducted for dependent variable with independent variables.

Table 4.3.1.3: Model Summary Analysis

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.356 <sup>a</sup>	.127	.100	.712

a. Predictors: (Constant), How long have you worked with SSNIT, Educational level, Age of respondent

b. Dependent Variable: Information Technology promotes effective customer service delivery

Table 4.2.1.3 shows that all independent variables such as, age of respondent, education level and how long have you worked with SSNIT absolutely correlated with the dependent variable ‘Overall I am satisfied with SSNIT’s Technology’ service. The values of R<sup>2</sup> and adjusted R<sup>2</sup> are found as 0.127 and 0.100 respectively which shows that 12.7% variation on the effects of Information Technology on overall customer satisfaction. Based on the results from the above analysis, all three factors are having significant influence on the effects IT has on the overall customer satisfaction of SSNIT’s Information Technology services.

Table 4.3.1.4: Analysis of Variance

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.069	3	2.356	4.651	.004 <sup>b</sup>
	Residual	48.641	96	.507		
	Total	55.710	99			

a. Dependent Variable: Information Technology promotes effective customer service delivery

b. Predictors: (Constant), How long have you worked with SSNIT, Educational level, Age of respondent

Table 4.3.1.5: Regression Coefficients

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	.962	.345		2.792	.006	.278	1.646					
	Age of respondent	.044	.124	.048	.354	.724	-.203	.291	.053	.036	.034	.504	1.983
	Educational level	.262	.076	.344	3.439	.001	.111	.413	.348	.331	.328	.908	1.101
	How long have you worked with SSNIT	.024	.093	.035	.260	.795	-.160	.208	.130	.027	.025	.489	2.044

a. Dependent Variable: Information Technology promotes effective customer service delivery

From the analysis results in above figure, both the multiple R (.048) and R2 statistic (.127) with value near to 1 indicate it is a good fit model. The model as a whole is also significant with great F-statistics (4.651) and Sig. F <0.01. Besides, the value of each parameter is ascertained to be significant with t-ratio being large in absolute value and Sig. <0.01. So, we are confident that there is a positive relationship in the independent variables that can be projected by the positive effect of IT promotion on customer satisfaction by the linear regression model.

Table 4.3.1.6: Collinearity Diagnostics

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Age of respondent	Educational level	How long have you worked with SSNIT
1	1	3.715	1.000	.00	.00	.01	.01
	2	.170	4.669	.01	.01	.45	.23
	3	.095	6.244	.15	.06	.32	.33
	4	.019	13.909	.84	.93	.22	.43

a. Dependent Variable: Information Technology promotes effective customer service delivery

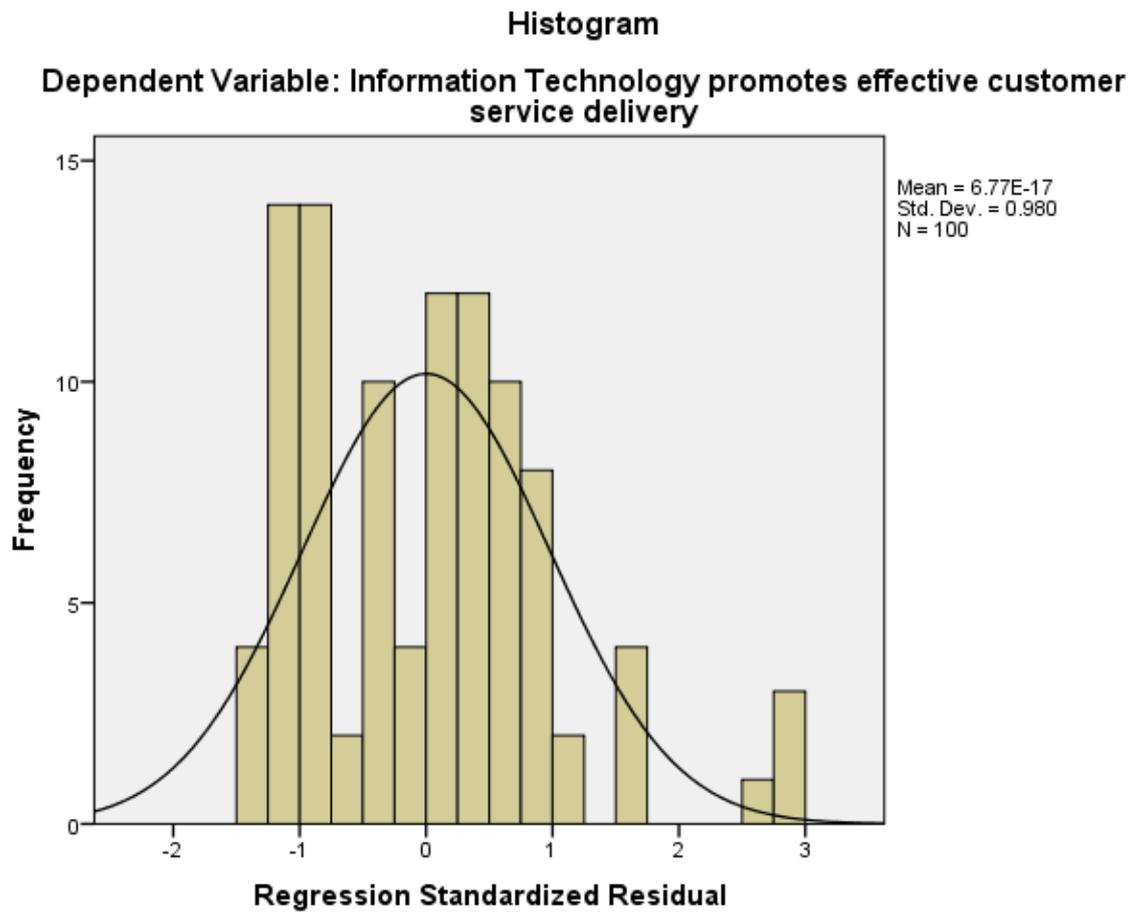
Table 4.3.1.7: Residual Statistics

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.38	2.81	1.73	.267	100
Std. Predicted Value	-1.309	4.025	.000	1.000	100
Standard Error of Predicted Value	.074	.301	.136	.043	100
Adjusted Predicted Value	1.36	2.88	1.73	.263	100
Residual	-1.020	2.358	.000	.701	100
Std. Residual	-1.433	3.313	.000	.985	100
Stud. Residual	-1.465	3.363	.002	1.009	100
Deleted Residual	-1.066	2.431	.003	.737	100
Stud. Deleted Residual	-1.474	3.562	.007	1.028	100
Mahal. Distance	.068	16.736	2.970	3.045	100
Cook's Distance	.000	.187	.013	.031	100
Centered Leverage Value	.001	.169	.030	.031	100

a. Dependent Variable: Information Technology promotes effective customer service delivery

Table 4.3.1.8: Histogram plot of Data Distribution



#### 4.4 Analysis of Responses to Research Questions

In presenting and analyzing the collected data, Ordinary Least Squares and Simple Linear Regression have been used to determine the association between the dependent and independent variables presented with the support of SPSS version 19.0.

#### **4.4.1 Staff and Management**

##### **4.4.1.1 The Use of IT by Staff Positively Affects Customer Service Delivery at SSNIT**

This question was to illicit from the staff and management of the organization the role that information technology is playing in helping them deliver quality customer service to their clients. The analysis will be based on some selected questions in the questionnaire which relate directly to the research question and were included mainly for such purpose. The age and length of service with SSNIT which were employed in the cross tabulation have been analysed below.

Data presented in Tables 4.3.1.1 to 4.3.2.9 show that 796 out of a combined 1000 responses either strongly agree or agree that the use of Information Technology has positively impacted customer service delivery. In effect it has increased customer satisfaction. Specifically they agree that; IT facilitates timely information processing and distribution; IT enable proper identification and communication with customers; IT promotes effective customer service delivery; customer complaints have reduced since the introduction of many IT facilities in the operations of SSNIT activities; there are adequate internal controls on IT to safeguard customer information and security; IT has reduced paper work and the incidence of wrong entries at the office; IT has reduced the time which was spent providing a particular service to a customer; IT has made it possible to centralize their systems such that staff can access data from a single interface; software updates and other IT facilities are constantly provided to ensure staff are up to date and finally IT has contributed in the increase of customers due to reduced time and efficiency.

The introduction of Information Technology in SSNIT operations has spurred a new era of efficiency and effectiveness in customer service delivery. Information processing and dissemination has become very easy. There is reduction in movement of files and paper folders from one office to the next. Issues related to impersonation and other identity theft has

become nonexistent. One officer can easily access information on any client with ease due to the centralization of database systems. Security of customer data has become better due to data encryption and addition of professional IT personnel. Dangers of missing papers and printed documents are no more a threat to service delivery. Only authorized personnel have access to certain confidential data and management has made customer data protection a number priority to avoid wrong payments.

The results also showed some significance that some staff believe that; the cost of implementing IT facilities at SSNIT outweigh their benefits and customer complaints have not reduced when it comes to wrongful payment of benefits and other related matters. More must also be done in the training on personnel for new IT facilities and updated programs.

Again, this result supports the view of Jeffers (2003) who posited that the strength and competitive advantage of an organization is complementarities between IT contribution, firm performance and leveraging service delivery of customers.

#### **4.4.1.2 Demographic Analysis**

##### **4.4.1.2.1 Age of Respondents against Other Variables**

From the demographic presentations above, it can be deduced that the age of the respondents, with respect to the staff and management, as an independent variable had influence on some of the dependent variables stated but had no influence on others.

It was observed that questions that bordered on Information Technology's role on management supervision, effective corporate governance, data processing and distribution, effective customer service delivery, reduction in the period used to attend to customers, collection of data on a single interface, management recognition of IT potential in service

delivery, management handling of system delays and failures, provision of necessary IT facilities and software updates, and the increment in the number of customers were had no significant association when it comes to the age of the respondent. This is based on the results presented in the Pearson's chi-square ( $p > 0.05$ ) test illustrated above.

On the other hand, on questions such as the role of IT in the proper identification and communication with customers had significant association, with 97 respondents belonging to the age group 26 to above 40 showing a stronger agreement. This was so because they have been preview the development of IT in the organization and know how far it has changed their operations in that respect. Respondents belonging to this same age group also disagreed that the staff have not received adequate training on the use of IT facilities implemented by the organization. They also explained that from their work at the office, they have also realized that customer complaints have reduced since the introduction of some many IT facilities. Some of these complaints include inaccurate member statement; removal of the dummy system where registered members only had SSNIT numbers but were not recorded on the main system; contributions were also kept manually with members keeping only a passbook which could be lost and in a situation where the employer also has issues with their voucher the member could lose their entire contributions; updating of old members to ensure that previous members who took advantage of the system to take double pensions could be identified and denied; improving the system to ensure that unique IDs are generated for each contributor; linking of SSNIT database systems to some banks to facilitate easy and quick payment of contributions by employers; elimination of incidence of overpayments and underpayments which was a major problem to SSNIT; easy and quick retrieval of contributions from employers by alerting SSNIT of delays and failures by employers when they occur etc. They also stated that internal controls have been properly structured are well monitored. According to Iddris A. A. et al., responses from the various insurance companies

in Nigeria in a research study showed that many insurance companies have started relating with their customers via IT networks, and have also encouraged customers by reaching out to them through electronic mails, text messages and the likes. The study also found that a good number of the insurance companies are of the opinion that IT has aided their performance levels. This study is also consistent with others [such as Hyvonen (2007), Chan *et al.* (1997), Harris & Katz (1988), among others]; it presents evidence that advances in information systems may have positive impact on the performance of any business.

The most significant challenge is that customers who receive their end of service benefits, however, still do come in with several complaints concerning how much they receive in benefits. There are issues related to the discounting of benefits, from previously where payments were done on compounding basis. This has resulted in some beneficiaries receiving nothing. The system does not make provisions for bonuses or annual increments. There are issues with beneficiaries also receiving their defined benefits due to the new laws. Correction of a system where employers paid less than the minimum wage or employee's contribution. The system has been structured such that these anomalies are corrected to avoid employees being cheated. The system has also been made in such a way that employees can no longer take advantage of the system by unilaterally increasing their salaries prior to retirement in order to enjoy higher pension salaries.

With the question of the cost of IT outweighing its benefits, most of the people within all the age groups were undecided because they said that they couldn't know much about how much the IT facilities cost the organization.

All the Pearson chi square utilized for these analyses have been presented in the Appendix at the end of the research.

#### **4.4.1.2.2 Length of Service against Other Variables**

Respondents views based on their length of service with the organization was not very different from the views expressed with regards to their age.

The views expressed based on the questions stated below were not significant according to the Pearson's chi-square test ( $p > 0.05$ ). The length of service does not have a relationship with management use of IT in supervision of benefit processing, effective corporate governance, effective customer service delivery, reduction in the period used to attend to customers, integration of customer data on a single interface, management recognition of IT potential, management handling of system delays and failures, proper identification and communication with customers, reduction in paper work in the office and issues associated with the payment of benefits and related issues at SSNIT.

The results however contrasted that questions on timely processing of customer data and distribution, provision of updates on IT facilities and software, cost-benefit analysis of IT implementation at SSNIT, staff not receiving adequate training on IT facilities, reduction in customer complaints and the availability of internal control measures were significant according to the Pearson chi-square test ( $p < 0.05$ ). All the Pearson chi square utilized for this analysis are in the Appendix at the end of the research.

## **P [4.4.2 Customers**

### **4.4.2.1 The level of Availability and Reliability of SSNIT's Information Technology**

The purpose of this research question was to find out from the customers how much they know of SSNIT's Information Technology systems that operate during and after their office is closed for regular work and how reliable they find these facilities. The analysis is based on a set of selected questions that are appropriate to answer this particular question.

The data presented in Table 6.1 and Table 6.3 utilized in this respect showed that 2,952 responses either strongly agree or agree that Information Technology services are available

after their regular working hours of the day and are reliable. Specifically these responses asserted that; SSNIT's technology is accessible beyond working hours; I have patronized one or more of SSNIT's online services and I am satisfied with the reliability of SSNIT's technology.

With respect to these questions; Regular updates on my SSNIT contributions are made available to me; I call the customer care center regularly to make complaints regarding my contributions and I find more convenient using the technology than interacting with the SSNIT staff, 2400 responses either disagree or strongly disagree to them. Many customers do not have updates of their SSNIT contributions and have to go to the offices of SSNIT to have these updates printed for them. Some agreed that a few years ago they started to send them updates but stopped just after three months. This method is important because it will enable ordinary customers know if their employers are paying their contributions.

Most customers even though like the use of technology, they however prefer interacting with staff over the use of the technology. This is because they think when they have issues with the technology they may not have immediate assistance, and so they would rather prefer dealing with the staff on a face to face basis.

A positive response was achieved when most customers asserted that they do not make regular complaints to the customer care center. The reason is because they believe that SSNIT does what is necessary provided their employer makes available all the necessary documents necessary for their enrolment. They only report to the office where they have personal enquiries or when their employer deems it necessary for them to do so.

#### **4.4.2.2 Customer Satisfaction with Processing of Social Security Benefits**

This was another important research question which sought to find out from customers their satisfaction with the whole process of social security benefits processing with emphasis on the technology application.

Customers who responded to being turned away because the office reports of technology breakdown and server problems either disagree or strongly disagree with 316 responses out of 400 total. This strongly indicates that the office is quite effective when it comes to ensuring that their Information Technology is up and running once their office is opened to work. It also buttresses the emphatic response given by the staff that the office provides all the needed facilities and updates on software.

Most importantly when customers were asked their overall satisfaction with SSNIT's technology, the response was very overwhelming with 380 people either strongly agree or agree that they are satisfied with SSNIT's technology. This is consistent with the responses related to most of the questions on reliability and availability of SSNIT's technology. Customers who have used any of SSNIT's Information Technology services express good opinions about them and therefore state that they achieved the purpose for which they used the technology. They also believe that new technologies such as the Biometric system and the SSNIT ATM services will perform well due to their experience with previous technology devices.

#### **4.4.3 Demographic Analysis**

##### **4.4.3.1 Age, Education Level and Length of Contribution against other Variables**

The observation was that age, level of education and the length of contribution by the customer has similar relationship with all the variables in the questionnaire except for the last question which showed some insignificance. According to the Pearson's chi-square test ( $p < 0.05$ ), the following questions had a significant relationship with age of the respondents;

SSNIT's IT is accessible beyond their regular working hours; I have patronized one or more of SSNIT's online technologies; SSNIT's should not be the sole institution responsible for the management of employee benefits; updates to IT facilities and software are provided to facilitate operations; I do not make regular complaints to the customer care center; SSNIT's IT is reliable and I am often turned away because of IT delays or failures.

For question 1, respondents who are more than 26 years and above 40 were aware that SSNIT's Information Technology services operated beyond the regular working hours. It is alsounderstandable why this age group also had the majority of people who had utilized one or more of SSNIT's online technologies. This attribute their knowledge of these services to wanting to know more about their retirement benefits and for that matter getting the needed information from the employers or the SSNIT office. It appears the young contributors are not very concerned about their pensions at an early age. They also argued that even though SSNIT at some point introduced a system where updates on their contributions were sent to them every month, that system was abandoned just after a few months and it should be reinstated.

All the Pearson Chi-square testsutilized for this analysis are presented in the Appendix at the end of the research.

#### **4.5 Impact of Information Technology on Customer Satisfaction**

An analysis of the impact of information technology can be determined using the Linear regression analysis of customers overall satisfaction with SSNIT's information technology, as a dependent variable against demographic independent variables. From the analysis, it was observed that all the independent variables recorded a positive and high mean against the dependent variable. Positive R-square value of 0.127 indicated how much variance the

dependent and independent variables explained the model. This meant that the model explains 12.7% of the perceive stress score. The Adjusted R-sqaure was 0.10.

Education level of respondent with a standard coefficient beta value of 0.344 showed that education level contributed the strongest to explaining the outcome of this analysis. The Pearson Correlation showed a positive correlation and therefore the dependent variable correlates strongly with the independent variables. This means that the independent variables had a positive influence on the responses given by the respondents.

The overall judgement is that, Information Technology has a positive impact on SSNIT customer satisfaction and the demographics supported this assertion.

Table 4.4 Linear Regression Table Showing the Impact of IT on Customer Satisfaction

<b>Independent Variables</b>	<b>95% CI</b>	<b>Beta</b>	<b>SE</b>	<b>t-value</b>	<b>P value</b>
Age of Respondent	.116, .266	.330	.038	5.02	0.00
Education Level	-.046, .034	-.014	.020	-.287	0.774
Length of Contribution	-.261, -.103	-.297	.040	-4.526	0.00

CI, Confidence Interval.

\*Multiple R<sup>2</sup> = .257; N = 400; F = 9.331;

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary of Findings**

The objective of this study was to evaluate the Impact of Information Technology on Customer Satisfaction at SSNIT. This papers goal was to achieve this objective by collecting views from customers of the institution and the staff and management. The customers expressed their views on the Information Technology facilities used by SSNIT in its operations as well as the staffs' response, especially in situations where there is technology failure or delay. The staff were also to express their views on their assessment of the use of the various IT facilities available for their use and management's function in ensuring that the right technologies are made available to discharge their duties for the benefit and satisfaction of the customer.

After analyzing the views from both spectra, it was observed that most of the customers are satisfied with SSNIT's Information Technology services and find them readily available and reliable. In spite of all these approvals, some still believe can do more with its technology, especially in areas which have to do with providing updates on their contributions and other online services. A good number still thinks SSNIT should not be the sole institution responsible for the management of all the pensions of employees.

The staff and management of SSNIT were very positive about the role Information Technology is playing in helping them perform their duties. They agreed that IT has positively facilitated their work from data entry to the payment of benefits to their customers.

They asserted that IT has played key roles in reducing identity theft and impersonation which were major issues in the past which even necessitated the establishment of the Prosecutions Unit. Information Technology has also increased the security and protection of data at the SSNIT office as well as making the work of management more efficient.

## **5.2 Conclusion**

This research has brought to bare the immense benefits associated with providing value to customers through the use of Information Technology. Every organization in this modern era makes use of one or more information technology facilities to ensure their customers enjoy quality and immediate services.

The research can conclude that Information Technology is playing a vital role in helping SSNIT achieve its goals. Information Technology is applied in every department in the organization, supporting the staff and management to enter, process and distribute information concerning customers to ensure their retirement benefits are ready whenever they are to proceed on retirement. Information Technology ensures that customer data is as secured as possible.

Customers of SSNIT also find the use of their information technology services highly reliable and satisfactory. Most of these customers would prefer SSNIT introduces even more technology to facilitate other operations in the organization.

## **5.3 Recommendations**

From the research it has been observed that despite all the positives from the use of information technology, SSNIT as an institution still has some work to do with this service. It

was observed that some of the Information Technology services such as online services and customer care center are two units which are been underutilized. A good number of customers do not know about the online service and may have heard of them from just another person. They also complained bitterly concerning the situation where they do not receive any information on their monthly contributions. This is a very difficult situation especially at a time like this when technology is ubiquitous. Every employee wants to know how much their employer is paying into their retirement account so that they can know whether they are being cheated. They also suggested that SSNIT updates their website often to help them know all the recent innovations in their operations.

The staff also believe that there is so much complaints from customers when it comes to benefits payments and other matters related to that services. Management must also campaign more to customers about the availability of other services such as the online services and the customer care center. They believe that the recent extension of the customer care center operations to a 24/7 period will enable them provide better services to the customers who cannot be able to make it to the office to make a complaint or any other enquiry. Management should also introduce more innovative facilities to control the issues related to payments and prosecutions.

It will also be necessary that SSNIT as an institution educates its customers on the differences between challenges caused by Information Technology and Government policies. This is because many customers are of the view that information technology is to blame for some of the inconsistencies in pension payments which in fact are mostly due to new laws and other government instructions.

### **5.3 Suggestions for Further Studies**

It is quite clear that all research inevitably confronts limitations. Information Technology has been identified to be making a positive impact on customer satisfaction, which was the prime objective of this study. However, this positive impact does not come with its own challenges and other related issues.

Further research can be done in this area to identify the challenges both customers and staff are facing in the use of the Information Technology facilities employed by SSNIT. This will enable the management and government know how to make the technology more user friendly and meaningful.

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## APPENDICES

### Appendix 1: Results from Pearson's Chi-square analyses

#### Age of Customer against Dependent Variables

##### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	45.581 <sup>a</sup>	12	.000
Likelihood Ratio	48.232	12	.000
Linear-by-Linear Association	18.594	1	.000
N of Valid Cases	400		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .20.

##### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.937 <sup>a</sup>	9	.000
Likelihood Ratio	48.932	9	.000
Linear-by-Linear Association	1.455	1	.228
N of Valid Cases	400		

a. 4 cells (25.0%) have expected count less than 5. The minimum expected count is .80.

##### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	101.968 <sup>a</sup>	12	.000
Likelihood Ratio	86.527	12	.000
Linear-by-Linear Association	8.323	1	.004
N of Valid Cases	400		

a. 3 cells (15.0%) have expected count less than 5. The minimum expected count is 1.20.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.708 <sup>a</sup>	12	.000
Likelihood Ratio	42.652	12	.000
Linear-by-Linear Association	1.520	1	.218
N of Valid Cases	400		

a. 3 cells (15.0%) have expected count less than 5. The minimum expected count is 1.20.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.871 <sup>a</sup>	12	.000
Likelihood Ratio	50.136	12	.000
Linear-by-Linear Association	1.722	1	.189
N of Valid Cases	400		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .20.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	70.142 <sup>a</sup>	12	.000
Likelihood Ratio	61.856	12	.000
Linear-by-Linear Association	1.934	1	.164
N of Valid Cases	400		

a. 6 cells (30.0%) have expected count less than 5. The minimum expected count is .40.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	79.716 <sup>a</sup>	9	.000
Likelihood Ratio	78.236	9	.000
Linear-by-Linear Association	23.372	1	.000
N of Valid Cases	400		

a. 9 cells (56.3%) have expected count less than 5. The minimum expected count is .40.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.344 <sup>a</sup>	12	.000
Likelihood Ratio	37.796	12	.000
Linear-by-Linear Association	15.837	1	.000
N of Valid Cases	400		

a. 5 cells (25.0%) have expected count less than 5. The minimum expected count is 1.00.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	58.137 <sup>a</sup>	12	.000
Likelihood Ratio	46.397	12	.000
Linear-by-Linear Association	.575	1	.448
N of Valid Cases	400		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .40.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.201 <sup>a</sup>	6	.224
Likelihood Ratio	8.996	6	.174
Linear-by-Linear Association	6.931	1	.008
N of Valid Cases	400		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.00.

## Staff and Management Analysis

### Appendix 4: Respondents' Age against Dependent Variables

#### Age and Management supervision

##### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.505 <sup>a</sup>	9	.311
Likelihood Ratio	12.590	9	.182
Linear-by-Linear Association	.373	1	.541
N of Valid Cases	100		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .04.

##### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.102 <sup>a</sup>	9	.428
Likelihood Ratio	11.224	9	.261
Linear-by-Linear Association	.361	1	.548
N of Valid Cases	100		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .04.

##### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.486 <sup>a</sup>	6	.002
Likelihood Ratio	22.792	6	.001
Linear-by-Linear Association	.481	1	.488
N of Valid Cases	100		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .02.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.362 <sup>a</sup>	9	.599
Likelihood Ratio	9.880	9	.360
Linear-by-Linear Association	.279	1	.598
N of Valid Cases	100		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .06.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.611 <sup>a</sup>	12	.003
Likelihood Ratio	30.706	12	.002
Linear-by-Linear Association	6.452	1	.011
N of Valid Cases	100		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .10.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.085 <sup>a</sup>	12	.000
Likelihood Ratio	28.824	12	.004
Linear-by-Linear Association	1.752	1	.186
N of Valid Cases	100		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .04.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.442 <sup>a</sup>	9	.000
Likelihood Ratio	25.114	9	.003
Linear-by-Linear Association	2.632	1	.105
N of Valid Cases	100		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .18.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.391 <sup>a</sup>	9	.008
Likelihood Ratio	23.948	9	.004
Linear-by-Linear Association	2.549	1	.110
N of Valid Cases	100		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .08.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	58.216 <sup>a</sup>	12	.000
Likelihood Ratio	26.108	12	.010
Linear-by-Linear Association	.087	1	.768
N of Valid Cases	100		

a. 11 cells (55.0%) have expected count less than 5. The minimum expected count is .04.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.971 <sup>a</sup>	12	.089
Likelihood Ratio	20.746	12	.054
Linear-by-Linear Association	1.058	1	.304
N of Valid Cases	100		

a. 16 cells (80.0%) have expected count less than 5. The minimum expected count is .02.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.400 <sup>a</sup>	12	.495
Likelihood Ratio	15.583	12	.211
Linear-by-Linear Association	.694	1	.405
N of Valid Cases	100		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .02.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.655 <sup>a</sup>	6	.723
Likelihood Ratio	4.675	6	.586
Linear-by-Linear Association	.206	1	.650
N of Valid Cases	100		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .02.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.558 <sup>a</sup>	9	.056
Likelihood Ratio	21.714	9	.010
Linear-by-Linear Association	.098	1	.754
N of Valid Cases	100		

a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .14.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.660 <sup>a</sup>	9	.135
Likelihood Ratio	19.222	9	.023
Linear-by-Linear Association	4.129	1	.042
N of Valid Cases	100		

a. 11 cells (68.8%) have expected count less than 5. The minimum expected count is .04.

**Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	107.192 <sup>a</sup>	12	.000
Likelihood Ratio	26.619	12	.009
Linear-by-Linear Association	.298	1	.585
N of Valid Cases	100		

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .04.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.530 <sup>a</sup>	9	.241
Likelihood Ratio	15.421	9	.080
Linear-by-Linear Association	.210	1	.647
N of Valid Cases	100		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .18.

## APPENDIX 6:

### QUESTIONNAIRE

DATE .....

#### QUESTIONNAIRE FOR THE CUSTOMER

My name is **RUKIA VANDYCK**, a student from the Kwame Nkrumah University of Science & Technology (KNUST) – Kumasi, Ghana, carrying out a study about THE IMPACT OF INFORMATION TECHNOLOGY ON CUSTOMER SATISFACTION AT SSNIT. The purpose of this study is to determine whether there is an increase in the level of efficiency and effectiveness of operations since the introduction of information technology in processing of benefits. You are kindly requested to answer this questionnaire briefly; the information will be treated confidential for academic purposes only.

#### Background Information

Name: .....

1. Sex:                      Male     Female
  
2. Age :                      (20-25)                       (26-30)  (31-40)                       (40 and above)
  
3. Education level:                      Master's                       Degree                       Diploma   
Secondary   
Primary     None  Other   
specify.....
  
4. Profession / Occupation .....
  
5. How long have you contributed to SSNIT    a. < 10 years    b. 10 – 20 years    c. More than 20 years  
years

**Thanks for your cooperation**



## Questions

### Staff

Kindly answer (A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree, by ticking the box against the corresponding question in the table below.

QUESTION	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. Development of benefits processes and the adoption of Information Technology promotes effective supervision by management					
2. Development of Information Technology has promoted effective corporate governance at SSNIT					
3. Information Technology facilitates timely information processing and distribution					
4. Information Technology enables proper identification and communication with customers					
5. Information Technology promotes effective customer service delivery					
6. The cost of acquiring and implementing Information Technology projects at SSNIT outweigh their benefits					
7. Employees have not received adequate training on the usage of the Information Technology facilities					
8. Customer complaints have reduced since the introduction of many Information Technology facilities in the operational activities of SSNIT					
9. There is adequate internal control over operations of Information Technology at SSNIT					

<b>10.</b> Information Technology has reduced paper work in the office as well as the incidence of wrong entries					
<b>11.</b> Information Technology has reduced the period used to attend to customers					
<b>12.</b> Our customer service representatives and other units can access all the data pertinent to a customer through a single interface					
<b>13.</b> Management recognize the potential of Information Technology as a tool to improve customer satisfaction					
<b>14.</b> Management does well to make customers understand where we experience system delays or failures					
<b>15.</b> All necessary updates to software packages and other Information Technology facilities are provided on time to ensure effective continuous service delivery					
<b>16.</b> Customers do not complain of wrong payments and other related matters after their benefits have been fully processed and paid					
<b>17.</b> Information Technology has contributed mostly to the sharp increase in the number of SSNIT contributors in the past few years					

**THANK YOU**

**Questions**

### Customers

Kindly answer (A) Strongly Agree (B) Agree (C) Undecided (D) Disagree (E) Strongly Disagree, by ticking the box against the corresponding question in the table below.

Question	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. SSNIT's technology is accessible beyond their working hours					
2. I have patronized one or more of SSNIT's online technology services					
3. I think SSNIT should not be the sole institution responsible for processing employees pensions					
4. Regular updates on my SSNIT contributions are made available to me					
5. I call the customer care center regularly to make complaints regarding my contributions					
6. I am not happy with the way the staff interact with customers					
7. I am satisfied with the reliability of SSNIT's technology					
8. I find it more convenient using the technology than interacting with the SSNIT staff					
9. I am often turned away because the office reports of technology breakdown and server problems					
10. Overall I am satisfied with SSNIT's technology					

**THANK YOU**