



**ICT SYSTEMS AND PERFORMANCE OF BUSINESS ORGANIZATIONS IN  
UGANDA: A CASE OF MOVIT PRODUCTS UGANDA LIMITED**

**BY**

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## **DECLARATION**

I, Sylvester Muhereza, do hereby declare that this dissertation is my original work and to the best of my knowledge, it has never been presented to any other university or institution for any academic award before. Where work of others was used, it has been duly acknowledged.

Signed: ----- Date: -----

## **APPROVAL**

This is to certify that this study was conducted under our supervision and the dissertation has been submitted for examination with our approval as the candidate's supervisor

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## **DEDICATION**

This dissertation is dedicated to my dear father, the Late Yofesi Bwengye and the Late Jacinta Kagashanga, mother who taught me that the best kind of knowledge to have is that which is learned for its own sake. To my brothers Fred, George, Julius, Godfrey and sister Toepister who taught me that even the largest task can be accomplished if it is done one step at a time. I also dedicate the book to my loving wife, Juliet, and wonderful daughters Christabel and Arianah whose words of encouragement and push for tenacity continue ringing in my ears upto this time.

To my family friends Brown Banyenzaki, Bakamufaho babaija, Dennis, Ambrose, Cosmas, Janet, Council Jotham, Margeret, Justus and in laws mummy Shalon, Justine, Lilian, Rodgers who have never left my side and are very special.

May God bless them all.

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In a special way, I extend my sincere thanks to the management and staff of Movit Products Limited not only for allowing me conduct the study in the organization but also for the great sense of cooperation and support accorded the study as respondents during data collection. I take the pleasure to extend my sincere gratitude to all those who contributed by providing the information that helped me gain insights during the great discussions and the stimulating dialogues.

Lastly but not least, much appreciation to my classmates, friends and workmates for their unquantifiable love and guidance extended to me on a number of issues during my studies at UMI. May God bless them all

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

ENIAC	Electronic Numerical Integrator and Calculator
IBM	International Business Machine
ICT	Information Communication Technology
IS	Information Systems
CEO	Chief Executive Officer
MPL	Movit Products limited
MIT	Massachusetts Institute of Technology
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UTAUT	Unified Theory of Acceptance and Use of Technology
SAP	Systems Applications Products In Data Processing
ERP	Enterprise Resource Planning

## **ABSTRACT**

The study examined the effect of Information Communication Technology systems on the performance of business organisations in Uganda, taking a case analysis of Movit Products Limited. Specifically, the study examined the effects of: facilitating conditions; social influence; performance expectancy; and effort expectancy on the performance of Movit products Uganda limited. The study was a cross sectional survey design that adopted both qualitative and quantitative approaches. Questionnaires and Interview guides were used to collect data from 198 out of the targeted 230 respondents. Whereas Qualitative data was analyzed using content analysis, Quantitative data was analyzed using Pearson correlation. The study concluded that facilitating conditions; social influence; performance expectancy; and effort expectancy in ICT systems all had a positive significant effect on the performance of business organizations in Uganda. The study recommended that business organizations in Uganda should promote policy formulation, technical support and ensure there is adequate ICT trainings in the company. Their employees should be trained and in turn will pass the knowledge to their customers. Training will help improve confidence as well as improve innovation. Organisations should develop, implement and regularly review policies that support facilitating conditions for ICT Systems as away of providing guidelines and support to be followed when operating computerized systems. They should ensure that ICT Systems fully perform well so as to enhance company image to the public, In order to realize desirable performance of business organisations, management should embark on ensuring that the available systems are less complex, easy to use and can increase the performance gains of staff as this will create effectiveness and efficiency which will in turn result into performance and achieving the business intended objectives.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

This study analyzed the effect of Information Communication Technology (ICT) systems on performance of business organizations in Uganda, taking a case study of Movit Products Limited. ICT systems were conceived as the independent variable whereas performance of business organisations was considered as the dependent variable. This chapter presents the background of the study, the statement of the problem, the purpose of the study, the objectives of the study, the research questions and the hypothesis of the study. The chapter also presents the conceptual framework, significance of the study, the justification of the study, scope of the study, as well as operational terms and concepts.

### **1.2 Background to the Study**

This subsection presents the background to the study under four perspectives including the historical, theoretical, conceptual and contextual.

#### **1.2.1 Historical Background**

According to Aldinger (1967), uptake of ICT systems has globally accelerated rapidly for the past 60 years. Although, the modern computer age dates before World War II when American and European scientists developed the first electronic digital computing devices, the origins of computerization is as old as the mechanical computing devices of the 17th century. Since the invention of the microchip in the early 1970s, computerization has impacted every aspect of business and society across the world. During the 17th century, several mathematicians Blaise Pascal in France and Gottfried Wilhelm Leibniz in Germany each developed mechanisms to automate the basic mathematical functions of addition, subtraction, multiplication and division

(Ryan, 2014). These devices were improved upon over the next 200 years, but it was not until the 19th century that the British engineer Charles Babbage (1967) originated the idea of a programmable computer. During the early years of the 20th century, improvements in industrial technology made it possible to begin implementing ICT technologies.

### **1.2.2 Theoretical Background**

A number of theories have been used in information technology researches and key amongst these are; Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1975), Theory of Planned Behaviour (TPB) (Ajzen, 1991) and the Unified Theory of Acceptance and Use of Technology (UTAUT) propounded by Venkatesh (2003) which posits that the core determinants of users' acceptance and usage behaviour of any new information technology are; performance expectancy, effort expectancy, social influence and facilitating conditions. Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her attain gains in job performance (Venkatesh, 2003).

Effort expectancy describes the degree of ease associated with the use of the system (Venkatesh, 2003). Social influence on the other hand is the degree to which an individual perceives that it is important others believe he or she should use the new system. According to Dedan (2012), social influence has three constructs-subjective norms, social factors and image. Facilitating conditions are defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system (Ludolf, 2013). The proponents of UTAUT also suggest that the variables of gender, prior experience, age and voluntariness moderate the relationship in this model. However, there have been a number of studies which used UTAUT without considering the use of moderating factors. This means that UTAUT can be modified to suit study contexts. The fundamental reason for choosing and adopting UTAUT theory in this study



was due to its firm roots in IT resource in form of organizational support systems, ICT infrastructure and user acceptance.

In this Particular study, UTAUT was operationalized under performance expectancy, effort expectancy, social influence and ICT facilitating conditions against performance of business organization.

### **1.2.3 Conceptual Background**

The key concept in this study was influence of ICT systems on performance of Business organisations . An ICT system is a set-up consisting of hardware, software, data and the people who use them. It commonly includes communications technology, such as the Internet. ICT and computers are not the same thing. Computers are the hardware that is often part of an ICT system. ICT Systems are used in a number of environments, such as: offices, shops, factories, aircraft, ships. They're also used in fields such as: communications, medicine, farming. By using ICT systems we are: more productive - we can complete a greater number of tasks in the same time at reduced cost by using computers than we could prior to their invention, able to deal with vast amounts of information and process it quickly, able to transmit and receive information rapidly

In this study, ICT systems included performance expectancy, effort expectancy, social influence and facilitating conditions. Whereas performance expectancy was understood by its constructs which are perceived usefulness, relative advantage and outcome expectations, effort expectancy related to ease of use of contribution, complexity and ease of use. Social influence referred to subjective norm and image. Facilitating conditions related to perceived behavioral control, facilitating conditions and compatibility while performance of business organisations, the dependent variable was operationalised in terms of customer satisfaction, customer loyalty, customer attrition and churn rates. Computer continues to play an ever-increasing role both in our

everyday lives and in business organisation of all types. Within Movit Products Limited as an organisation the impact of computerization results has tremendous change and presents management in many situations with one of the most difficult of all contemporary challenges. According to Ryan (2010) performance refers to the ability to accomplish the set tasks successfully. Performance of business organization was measured by customer satisfaction, customer retention, customer loyalty, customer attrition and churn rates

#### **1.2.4 Contextual Background**

Movit Products Limited is a cosmetic manufacturing company established in 1997 and officially started manufacturing of quality body and hair care cosmetics and beauty products in 1999 when it was incorporated into a fully registered company in Uganda. The company is headed by the Executive Director (CEO) and employs a total of 900 contracted workers of various professions. The company is arranged into 6 directorates with each having other departments and sections under them, these are Business growth, Finance and ICT, Production and supply chain, Directorate of governance, legal and Compliance, Directorate of Human capital and directorate of Reach and Development. MPL's business strategy is based on ensuring effectiveness and through use of ICT systems in order to enhance and promote customer satisfaction , automation of its production to improve efficiencies, new market penetration, product development, diversification, cost leadership, differentiation and profit maximization. At the formation of Movit Products Limited, the use of computerized systems was at low ebb and only the Information Technology section used them. Service delivery to the clients was done manually, after which the information would be captured on the computer for quick future reference.

Movit Products Limited took measures to computerize their functions in an attempt to enhance her overall performance. In the early 2010, Movit Products Limited started automating its operation in

an effort to improve on its operations. To date, all directorates as well as departments, units and subunits under them are interconnected and served using computerized systems called SAP (systems Application Products in Data processing) under an ICT network for ease of communication and effective decision. Musani (2015) opines that ever since the implementation of Enterprise Resource Planning System in 2010 (EBIZ FRAME ERP), they have not been able to foster, promote and achieve highest levels of customer satisfaction contrary to their expectations in Movit Products Limited. According to Sseviri (2014), ever since Movit computerized its operations, employees have found it hard to use computerized systems to promote customer satisfaction, the slow network that is on and off, limited skills amongst staff members and limited computer access has been an impediment to accessing services and accomplishing activities such as generating order request, order fulfillment, stock request notes, credit and debit notes, customer invoices, payments and objections and appeals through the internet at different MPL branches on time. There have been delays due to network breakage and system delays all these have affected service delivery to the customers. The Movit Annual Report (2015) showed that there was increasing customer defections customer retention, at the company which was affecting the performance of the company. For example, the report showed that customer orders in regard to quantity and frequency were reducing against increasing customer defection and customer attrition necessitating the company to do more to meet customer expectations. Additionally, improvements in systems and procedures have also been hindered by senior management who abruptly change day to day work routines. The above weaknesses may be responsible for the growing poor business performance that is linked to reduced customer satisfaction and loyalty at Movit. It is upon this background that the study examined the influence of ICT Systems on the performance of business organizations in Uganda taking a case analysis of Movit Products Limited

### **1.3 Problem Statement**

Movit Products limited (MPL), a leading manufacturer and provider of healthy beauty hair and skin care cosmetics products in Africa, has enhanced structural adjustments that promote system computerisation at the company. In the early 2010, for example, Movit Products Limited started automating its business functions using ICT systems, it set up a fully-fledged department of information and communication technology (ICT), where all computers are connected to the internet with a 24hour intranet in operation.

Despite all this, the overall performance is still far below expectations. Movit still struggles with for example, declining customer satisfaction which is evidenced by the persistent decline in customer loyalty, increasing customer defection, attrition and churning over the years (MPL Performance Report, 2014), this is against its overall business strategy of ensuring effectiveness and efficacies though improved ICT systems. According to the report, as a result of the slow network that is on and off, limited skills amongst staff members and limited computer access these have been an impediment to accessing services and accomplishing activities such as generating order request, order fulfillment, stock request notes, credit and debit notes, customer invoices, payments and objections and appeals through the internet at different MPL branches on time (Lotalo, 2013). According to Lutalo (2013), time and again clients complain about delayed service delivery and order fulfillment whereas, staff complain about the slow processing speed of the network. Mukholi (2015) pointed out that it was common for the network to be off for a day because the connectivity speed was sometimes low for the internet. There is fear that if the Company does not address the problem, customers may lose trust and confidence in Movit Products Limited. The study therefore analyzed the effect of ICT systems on the performance of business organizations taking a case of Movit Products Limited.

#### **1.4 Purpose of the Study**

The study examined the influence of ICT systems on the performance of business organizations taking a case of Movit Products Limited.

#### **1.5 Objectives of the Study**

The specific objectives of the study were:

- i) To assess the effect of facilitating conditions in ICT systems on performance at Movit Products Limited.
- ii) To examine how social influence in ICT systems affect performance at Movit Products Limited.
- iii) To establish the extent to which performance expectancy in ICT systems affects the performance at Movit Products Limited.
- iv) To establish the extent to which effort expectancy in ICT systems affects performance at Movit Products Limited.

#### **1.6 Research Questions**

The study attempted to answer the following question.

- i) What is the effect of facilitating conditions in ICT systems on performance of Movit Products Limited?
- ii) What is the effect of social influence in ICT systems on performance of Movit Products Limited?
- iii) To what extent does performance expectancy in ICT systems affect the performance of Movit Products Limited?
- iv) How does effort expectancy in ICT systems affect performance of Movit Products Limited?

## **1.7 Hypotheses of the Study**

The study was guided by the following hypotheses;

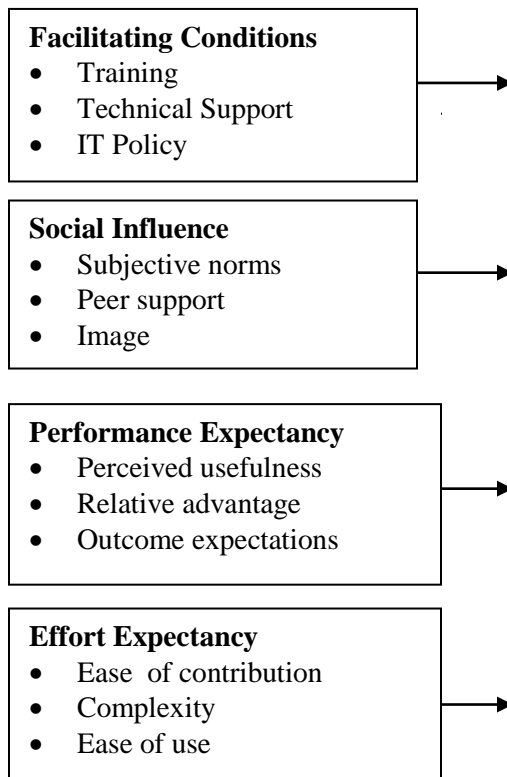
- i) Facilitating conditions in ICT systems have a positive significant effect on the performance of business organizations
- ii) Social influence in ICT systems has a positive significant effect on the performance of business organizations
- iii) Performance expectancy in ICT systems has a positive significant effect on the performance of business organizations
- iv) Effort expectancy in ICT systems has a positive significant effect on the performance of business organisations

## 1.8 Conceptual Framework

The framework shows an analysis of the relationship between ICT systems and the performance of business organizations.

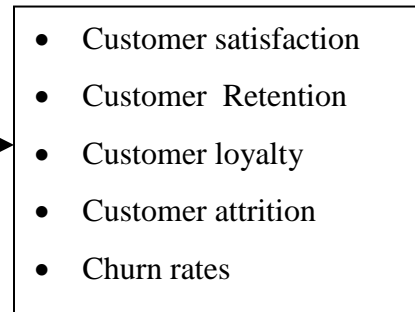
### Independent Variable (IV)

#### ICT SYSTEMS (IV)



### Dependent Variable (DV)

#### Performance of Business organisations (DV)



*Source: Adapted from Venkatesh (2003) and modified by the researcher*

**Figure 1. 1: Conceptual Framework showing relationship between ICT systems and performance of business organizations**

ICT systems were construed as the independent variable and performance of business organisations was the dependent variable. ICT systems was conceptualized as performance expectancy, effort expectancy, social influence and facilitating conditions. Performance expectancy in ICT systems was defined by its constructs which are perceived usefulness, relative advantage and outcome

expectations. Effort expectancy in ICT systems was looked at in terms of its constructs which are ease of use of contribution, complexity and ease of use. Social influence in ICT systems was measured according to subjective norm, peer support and image. Facilitating conditions in ICT systems were looked at in terms of its constructs which are training, IT policy and technical support. Performance of Business organisations was measured in terms of customer satisfaction, customer retention, customer loyalty, customer attrition and churn rates.

## **1.9 Significance of the Study**

The findings of this study may be of major significance to a number of categories of stakeholders, including other authorities, decision makers, policy makers, planners, and future researchers.

Movit Products Limited is likely to use the findings of this study to focus on those factors that support its performance. The study may help to provide baseline facts about computerized systems usage behaviour and intention by workers towards business performance and in turn result into customer satisfaction and loyalty, reduced customer attrition at Movit Products Limited.

The findings may be used by policy makers and others who influence policy reviews on the importance of ICT systems in business organizations. This knowledge may help the functionaries in devising better strategies for ensuring business performance with the help of ICT Systems.

Future researchers may use this study as a source of reference, and to be motivated by the same study to undertake further research on ICT systems and performance of business organisations.



## **1.10 Justification of the Study**

The study is justified in that ICT Systems is used by Movit as a strategy of enhancing performance at the company. As a result of the declining customer loyalty, high customer defections, attritions and churning, it forced the management of the company to review the current operating systems used at the company. Based from the existing literature (Lyon, 2012; Johnson & Fornell, 2011; Oliver, 2010; Venkatesh, 2003), research has been carried out on business performance in the private sector, however, no studies have been carried out to investigate the effect of ICT system on performance of businesses organisations in manufacturers of beauty products such as Movit. Therefore, providing a research gap which the study set out to fill by undertaking a study on the ICT systems and performance at Movit Products Limited.

## **1.11 Scope of the Study**

The section presents the study scope in three perspectives content scope, geographical scope and time scope.

### **1.11.1 Subject Scope**

This study focused on the influence of ICT systems on performance of business organizations. The ICT Systems were limited to the four constructs of performance expectancy, effort expectancy, social influence and facilitating conditions. On the other hand, performance of Business organisations was limited to customer satisfaction, customer retention, customer loyalty, customer attrition and churn rates.

### **1.11.2 Geographical Scope**

The study was centred on Movit Products Limited head office on Entebbe Road located in Kampala district in Uganda. This was because the headquarters of the company are located there and it is the district with the highest number of branches and outlets of the company. Likewise, the district accounts for the biggest share of the company's return on investment and houses the largest clientele base. The study was restricted to the staff at the head office and key customers of Movit Products Limited.

### **1.11.3 Time Scope**

The study covered the period from 2011 to 2016. This is the period during which the company continued to experience a decline in business performance due to challenges arising from ICT Systems leading customer disloyalty, customer deflection, customer attrition and customer churning (Movit Annual Report, 2015) despite management's efforts to computerize organizational systems.

## **1.12 Operational Definitions of Key Terms and Concepts**

For purposes of this study, the following terms and concepts were used to signify the meanings indicated below:

According to Lyon (2012) system computerization refers to the process of implementing the control of equipment with advanced technology; usually involving electronic hardware; "automation replaces human workers by machines. An ICT system is a set-up consisting of hardware, software, data and the people who use them. It commonly includes communications technology, such as the Internet. Computer continues to play an ever-increasing role both in our everyday lives and in organisation of all types. Within Movit Products Limited as an organisation

the impact of computerisation results has tremendous change and presents management in many situations with one of the most difficult of all contemporary challenges.

**For purposes of this study, ICT Systems** referred to performance expectancy, Effort expectancy, social influence and facilitating conditions

**Performance Expectancy:** The degree to which the individuals believe that the use of the technologies will result in performance gains. This may also be viewed as the perceived usefulness of the technologies.

**Effort Expectancy:** The ease of use of the technologies.

**Social Factors:** The extent to which the individuals believe that important others believe that they should use the technologies.

**Facilitating Conditions:** The perceived extent to which the organisational and technical infrastructure required for the support of the technologies exist.

**Performance of Business organisations.** The accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed by a business organisation

**Customer satisfaction.** This is an important determinant of customer loyalty and the financial profitability (Johnson and Fornell, 2011). In the words of Oliver (2010), satisfaction is the consumer's fulfillment response. Performance of Business organisations was measured in terms of Customer satisfaction, customer defection, customer loyalty, customer attrition and churn rates.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

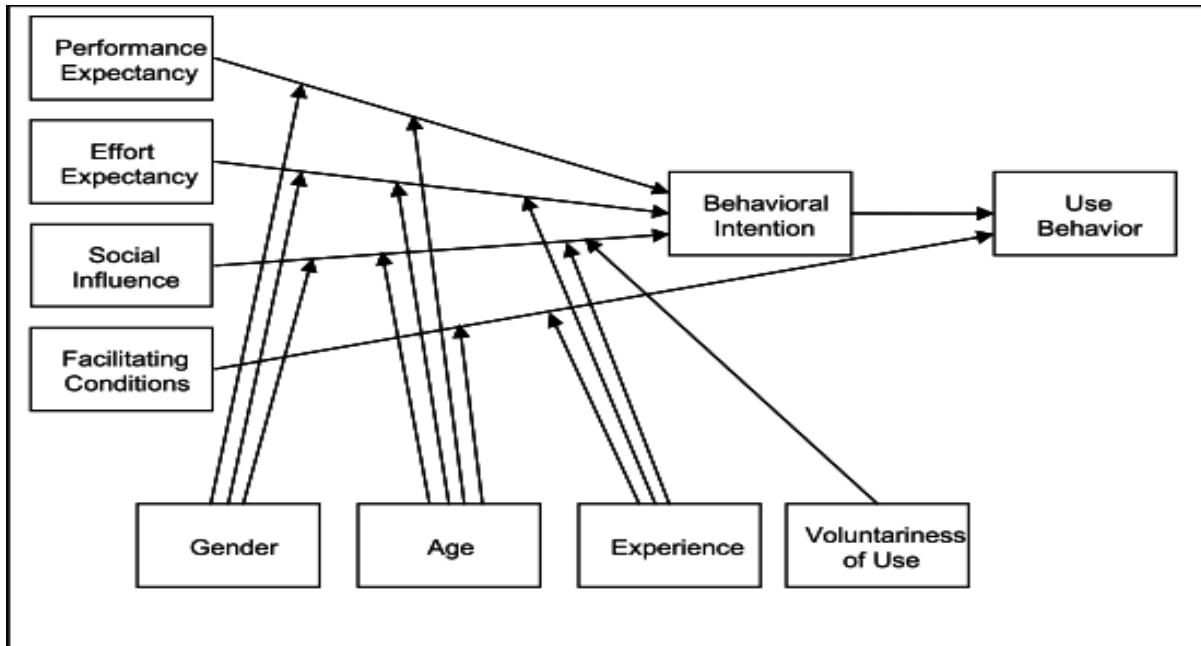
The study examined the effect of ICT systems on the performance of business organizations in Uganda taking a case of Movit Products Limited. This chapter presents the review of theoretical and related objective by objective.

#### **2.2 Theoretical Review**

Since the advent of ICT in the 20<sup>th</sup> century, there have been a number of models and theories used in information system researches to understand the behaviours of information system usage and most of them are based on models from social psychology focusing on beliefs, attitudes and behavior. Many theoretical models have been proposed to give explanations to end users acceptance behaviour. User acceptance of new Information systems (IS) innovation is often portrayed as one of the most mature areas of research in contemporary IS literature (Venkatesh, 2003). The Unified theory of adoption and use of technology by Venkatesh et al.(2003), which has been applied and empirically tested in different domains is explained giving its postulations. Since its inception many empirical studies have been conducted using UTAUT. The model is believed to be more robust than other Technology acceptance model in evaluating and predicting technology acceptance (Venkatesh, 2003). Although, the model has been widely used, tested and validated, the outcome of empirical studies has been inconclusive in respect to the magnitude, direction and significance of the relationships amongst the model. In social sciences the issue of variety in statistical significance is common because of complexity in human behaviour. Therefore, mixed outcomes in different studies are not uncommon, but it does undermine the accuracy of the models,

UTAUT inclusive. According to UTAUT, the four determinants of users acceptance and usage behavior of information technology are; performance expectancy(ICT usefulness); effort expectancy (ICT ease of use); social influence and facilitating conditions under the moderation of gender, age, experience and voluntariness of use as illustrated in the figure below;

**Table 2. 1: The UTAUT Model**



Source: Adapted from UTAUT Model (Venkatesh et al. (2003)

Venkatesh (2003) found that there is a strong relation between a user’s reaction to information technology and the attitude and behaviors of other people within the users social and work environment. This is because at inception of new information systems, users are unsure how to act; in the process, users will make decisions based on how existing social circles are behaving.

Although, attitude which refers to the individuals’ feelings (positive or negative) towards the technologies (Fishbein and Ajzen 1975) is an important component of the TRA and the TAM, it is not explicitly included in the UTAUT model. According to Venkatesh, et. al., (2003), the effect of attitude on behavioural intention is spurious and it emerges only when performance expectancy and

effort expectancy are omitted from the model. This means that attitude towards the use of the technologies does not provide enough unique information beyond that which is already provided jointly by performance expectancy and effort expectancy.

According to Ludolf (2012), social influence has three constructs – subjective norms, social factors and image. The study found when system usage was voluntary; the influence of these constructs was not significant. However, when system usage was enforced, the influence of these constructs was significant (Venkatesh, 2003). This could in part be explained by compliance to laid out institutional norms, whereby the need to comply leads social influence to have a direct influence on system usage. In contrast, whenever system usage is voluntary, the usage is determined by how a user perceives the technology will improve his or her social standing (Venkatesh, *ibid*).

Facilitating conditions is defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the new information system (Venkatesh, et. al., 2003, *ibid*). Facilitating conditions such as IT Hardware, manuals, user trainings and systems administrators represents organizational and technical support and are typically significant in the initial usage period. Facilitating conditions are non-significant in predicting intention. UTAUT also suggests that the variables of gender, prior experience, age and voluntariness moderate the relationship in this model but there are a number of studies which used UTAUT without considering the use of moderating factors (Williams, et. al., 2011). This means that UTAUT can be modified to suite study contexts.

In relation to this study, there have been many applications and replications of the entire model or part of the model in organizational settings that have contributed to fortifying its generalizability.

UTAUT thus provides a useful tool for managers needing to assess the likelihood of success for new technology introductions and helps them understand the drivers of acceptance in order to proactively design interventions (including training, marketing, etc.) targeted at populations of users that may be less inclined to adopt and use new systems. The theory helps develop a deeper understanding of the dynamic influences studied here, refining measurement of the core constructs used in UTAUT, and understanding the organizational outcomes associated with new technology use. The theory seeks to provide further understanding of issues surrounding acceptance of information and communication technology (ICT) by students of tertiary institutions. In the UTAUT model, performance expectancy, effort expectancy, and social factors have direct effects on behavioural intention, which along with facilitating conditions have direct effects on use behaviour. The effects of interactions of each of performance expectancy, effort expectancy and social factors with each of age and gender; interactions of experience with each of effort expectancy and social factors; and an interaction of voluntariness of use and social factors on behavioural intention are also included. Finally, there are effects of interactions of age and facilitating conditions and experience and facilitating conditions on use behaviour (Venkatesh, et. al., 2003). The UTAUT model does not include an effect of facilitating conditions on behavioural intention since it is expected to be non-significant once both performance expectancy and effort expectancy are included (Venkatesh, et. al., 2003).

## **2.3 Review of Related Literature**

The actual review of literature will be based on the main objectives as they were conceived earlier in the conceptual framework in Chapter one.

### **2.3.1 Facilitating Conditions in ICT systems and Performance of Business Organisations**

AlAwadhi and Morris (2008) investigated the adoption of e-government services using UTAUT, the survey was carried out on 880 students reveal that performance expectancy, effort expectancy and peer influence determine students' behavioural intention. Similarly facilitating conditions and behavioural intentions determine students' use of e-government services. Also, AlAwadhi and Morris (2008) used the UTAUT model to examine nurses behavioural intentions towards the use of Medical Teleconferencing Application, the study revealed that performance expectancy and effort expectation are high predictors of behavioural intention but social influence prediction power is low. In a cross cultural study of IT adoption, AlAwadhi and Morris (2008) found that performance expectancy, effort expectancy and social influence predicts use intention. Furthermore, AlAwadhi and Morris (2008) found that social influence have a significant impact on students behavioural intention to use moodle and students' behavioural intentions is a powerful predictor of the use of the e-learning system. Cheng, Liu, Song and Qian (2008) investigated the validity of UTAUT using 313 intended users of Internet banking in China, the result suggest that performance expectancy and social influence are strong predictors of behavioural intention. In a similar study, Cheng, Liu, and Qian (2008) found performance expectancy and social influence of the UTAUT constructs as predictors of users behavioural intention towards internet banking.

Such an operationalization of habit has been shown to have a direct effect on technology use over and above the effect of intention and also to moderate the effect of intention on technology use



such that intention is less important with increasing habit (Limayem, 2007). Similar findings in the context of other behaviors have been reported in psychology research (Ouellette and Wood, 1998). In this work, the researcher will adopt the above discussed conceptual definitions of experience and habit. As we will also note later, we operationalize experience in keeping with much prior research as the passage of time from the initial use of a target technology and we operationalize habit in keeping with Limayem (2007) as a self-reported perception.

According to the authors of the facilitating conditions model, facilitating conditions have a positive relationship with technology usage. In earlier models such as TPB and DTPB, facilitating conditions predict intention when effort expectancy is unavailable. However, in MPCU and IDT, prediction of facilitating conditions on behavioural intention is non-significant (Venkatesh, et. al., 2003). In situations where an individual believes that support to use technology is erratic, influence on intentions to use technology will be significant. However, where the support is consistent, facilitating conditions are expected to directly influence use behaviour. It is therefore expected that facilitating conditions will predict use behavior. Facilitating conditions on behavioral intention is moderated by age, gender, and experience. Older consumers tend to face more difficulty in processing new or complex information, thus affecting their learning of new technologies (Plude and Hoyer, 1985). This difficulty may be attributed to the decline in cognitive and memory capabilities associated with the aging process. Hence, compared to younger consumers, older consumers tend to place greater importance on the availability of adequate support.

Moreover, men, more than women, are willing to spend more effort to overcome different constraints and difficulties to pursue their goals, with women tending to focus more on the magnitude of effort involved and the process to achieve their objectives (Venkatesh and Morris, 2000). Thus, men tend to rely less on facilitating conditions when considering use of a new

technology whereas women tend to place greater emphasis on external supporting factors. This can also be explained partly by the cognitions related to gender roles in society where men tend to be more task-oriented. Experience can also moderate the relationship between facilitating conditions and behavioral intention. Greater experience can lead to greater familiarity with the technology and better knowledge structures to facilitate user learning, thus reducing user dependence on external support (Alba and Hutchinson, 1987). Likewise, a meta-analysis showed that users with less experience or familiarity will depend more on facilitating conditions. Moreover, gender, age, and experience have a joint impact on the link between facilitating conditions and intention. Gender differences in task orientation and emphasis on instrumentality will become more pronounced with increasing age. As people become older, particularly from teenagers to adults, the differentiation of their gender roles will be more significant. Thus, older women will place more of an emphasis on facilitating conditions. Indeed, there is empirical evidence that gender differences in the important in this case.

The role of facilitating conditions in technology acceptance decisions is complex and subject to a wide range of contingent influences. Social influence has an impact on individual behavior through three mechanisms: compliance, internalization, and identification (Venkatesh and Davis, 2000). While the latter two relate to altering an individual's belief structure and/or causing an individual to respond to potential social status gains, the compliance mechanism causes an individual to simply alter his or her intention in response to the social pressure i.e., the individual intends to comply with the social influence. Prior research suggests that individuals are more likely to comply. This view of compliance is consistent with results in the technology acceptance literature indicating that reliance on others' opinions is significant only in mandatory settings, particularly in the early stages of experience, when an individual's opinions are relatively ill informed.

The normative pressure will attenuate over time as increasing experience provides a more instrumental (rather than social) basis for individual intention to use the system. Theory suggests that women tend to be more sensitive to others' opinions and therefore find social influence to be more salient when forming an intention to use new technology (Venkatesh, 2000), with the effect declining with experience (Venkatesh and Morris, 2000). As in the case of performance and effort expectancies, gender effects may be driven by psychological phenomena embodied within socially constructed gender roles. Rhodes (1983) meta-analytic review of age effects concluded that affiliation needs increase with age, suggesting that older workers are more likely to place increased salience on social influences, with the effect declining with experience (Venkatesh, 2000). Therefore, the researcher expects a complex interaction with these variables that simultaneously influence the social influence-intention relationship.

The inclusion of attitude in models of IS/IT acceptance is consistent with TRA (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), TPB (Ajzen, 1991) and DTPB (Taylor and Todd, 1995b). TAM can be considered as a special case of the TRA with only two beliefs comprising attitude. The TRA model claims that attitude completely mediates the relationship between these types of beliefs and intention (Taylor and Todd, 1995b). Further, TAM postulates that the easier a technology is to use and the more useful it is perceived to be, the more positive one's attitude and intention toward using the technology will develop (Davis, et. al., 1989; Taylor and Todd, 1995b). The relationship between attitude and behavioural intention represented in TAM implies that, all else being equal, people form intentions to perform behaviours toward which they have positive attitude. This relationship is central to TRA and related models presented by Davis (1989).

In the case of Uganda and more especially Movit Products Limited, the idea of facilitating conceptions of company systems is practiced as a way of system computerization in relation to company activities. However, it should also be noted that the reviewed literature draws a lot of attention on system facilitating conceptions and organisational performance in the manufacturing sector of developed economies leaving scanty literature on the effect of system facilitating conceptions on performance of business organisations in the cosmetics industry and more especially beauty products in developing economies such as Uganda. This provides a gap in literature which this study intends to bridge to provide information on the effect of ICT systems facilitating conceptions on performance of business organisations in the cosmetics manufacturing industry in Uganda.

### **2.3.2 Social Influence in ICT Systems and Performance of Business Organisations**

Based on a review of the extant literature, Venkatesh, et. al., (2003) developed UTAUT as a comprehensive synthesis of prior technology acceptance research. UTAUT has four key constructs (performance expectancy, effort expectancy, social influence, and facilitating conditions) that influence behavioral intention to use a technology and/or technology use. We adapt these constructs and definitions from UTAUT to the consumer technology acceptance and use context. Performance expectancy is defined as the degree to which using a technology will provide benefits to consumers in performing certain activities; effort expectancy is the degree of ease associated with consumers' use of technology; social influence is the extent to which users perceive that its important others believe they should use a particular technology; and facilitating conditions refer to consumers' perceptions of the resources and support available to perform a behavior. According to UTAUT, social influence is theorized to influence behavioral intention to use a technology, while behavioral intention and facilitating conditions determine technology use. Also, individual difference

variables, namely age, gender, and experience, are theorized to moderate various UTAUT relationships.

Lubega (2012) evaluated the social influence model in Guyana a non-Western country in the domain of ICT. It compares alternative versions of the model and identifies the version that is best for the Ugandan context. This approach provides companies and practitioners with a context-appropriate model that can be used to evaluate adoption of ICT (and of other technologies) in Uganda and similar countries. Based on the results, the study identifies the most important drivers of adoption and identifies areas for further methodological research. As far as we are aware, this is the first assessment of the social influence model in relation to ICT in the Uganda context. Our findings are therefore unique and are also informative in relation to technology adoption in general.

Social influence can directly affect intention to use technology. Superiors, faculties and peers of students can influence their overall behavioural intention to use ICT provided for learning. According to the authors of the social influence model, facilitating conditions have a positive relationship with technology usage. In earlier models such as TPB and DTPB, facilitating conditions predict intention when effort expectancy is unavailable. However, in MPCU and IDT, prediction of facilitating conditions on behavioural intention is non-significant (Venkatesh, 2003). In situations where an individual believes that support to use technology is erratic, influence on intentions to use technology will be significant. However, where the support is consistent we expect facilitating conditions to directly influence use behaviour. It is therefore expected that facilitating conditions will predict use behavior. Despite these contributions, it is worth noting that most published studies have only studied a subset of the effort expectancy constructs. The extensions, particularly the addition of new constructs, have been helpful to expand the theoretical horizons of

effort expectancy. However, the addition of constructs has been on an ad hoc basis without careful theoretical consideration to the context being studied and the works have not necessarily attempted to systematically choose theoretically complementary mechanisms to what is already captured in social influence.

In a use, rather than initial acceptance, context habit has been shown to be a critical factor predicting technology use (Kim and Malhotra, 2005). Based on the above gaps in social influence and the associated theoretical explanation provided, we integrate hedonic motivation, price value, and habit into social influence in order to tailor it to the consumer technology use context. Venkatesh, et. al., (2003) operationalized experience as three levels based on passage of time: post-training was when the system was initially available for use; 1 month later; and 3 months later. Bandura (2015) reported inconsistencies in the explanatory powers and the effects of the effort expectancy variables may be due to variety in the data analysis techniques employed or to culture and country level differences. Although there are differences in both the methods of analysis and the countries in which the studies are conducted, the effect of culture (or country) has important consequences.

Lubega (2012) noted that culture can result in social differences in the typical behaviours and attitudes associated with certain constructs resulting in alternative interpretations of the same items. It can also affect construct coverage by the proposed items, and stimulus familiarity. Furthermore, culture can affect the relative importance of the relationships among the constructs. Consequently, both the measurements of the constructs and the relationships between the constructs measured by the items may differ from one culture (or country) to another. A relevant example is found in the study by Lubega (2012), which finds that the social influence model holds in the United States and

Switzerland but not in Japan. It is therefore always important to re-evaluate even popular models whenever they are applied to a different country/cultural context: both the measurement of the constructs and the relationships among them should be re-evaluated. By evaluating the social influence measures and relationships, this study will determine whether or not the social influence model is appropriate for this context.

Much as the idea of system social influence has been extensively studied in the private sector, little attention has been focused on the cosmetics industry. Similarly, much of the existing literature focuses on system social influence and organisational performance causing gaps on the literature on system social influence and performance of business organisation such as the cosmetics industry and more especially manufacturers of body and hair products in developing countries where the structures of system social influence are still under developed to support business performance in the manufacturers of beauty products. The little or no decentralized systems in these organizations is the major challenge affecting system social influence and has in turn affected business performance. This explains why in beauty products manufacturing companies there are still challenges of customer satisfaction, loyalty, retention. This literature deficiency provides a research gap which will be bridged by this study.

### **2.3.3 Performance Expectancy in ICT Systems and Performance of Business Organisations**

The Performance Expectancy construct within each model is significant in both voluntary and mandatory usage contexts; however, each one is significant during the first time period, becoming non-significant over periods of extended and sustained usage (Venkatesh, et. al., 2003) which are consistent with previous research (Compeau and Higgins, 2015). To this end we expect effort expectancy to be more prominent in the embryonic stage of every behavioural intention to use ICT

for learning by students. It is also expected that increased levels of ease of use of ICT will also increase the behavioural intention to use ICT. It is apparent that experienced users would tend to be less influenced by the ease of using computers. Performance expectancy is the strongest predictor of intention and consistent with earlier models tested by Compeau and Higgins (2015). The predictive effect of performance expectancy is mediated by age, gender and experience. Bandura (2015) found that at early ages there was no significant difference between boys and girls in using computers however, at later ages, girls' interest wanes. In related research by Compeau and Higgins (2015), the perception of computer usefulness was found to be irrespective of age and student level. In view of the above discussion, the researchers hypothesized that performance expectancy positively influences customer satisfaction which this study will prove and disprove.

More broadly, Venkatesh, et. al., (2003) have called for alternative theoretical mechanisms in order to foster progress in this mature stream of work. The integration of hedonic motivation, price value, and habit brings such new mechanisms (i.e., affect, monetary constraints, and automaticity) tied to the new constructs into the largely cognition- and intention-based performance expectancy theory. Second, by adapting and extending performance expectancy to include new constructs and altering existing relationships, this work furthers the generalizability of performance expectancy to a different context (i.e., consumer IT) that is an important step to advance a theory (Bandura, 2016). Finally, from a practical standpoint, the rich understanding gained can help organizations in the consumer technology industry better design and market technologies to consumers in various demographic groups at various stages of the use curve.

The performance expectancy construct within each individual model is the strongest predictor of intention and remains significant at all points of measurement in both voluntary and mandatory



settings, consistent with previous model tests (AlAwadhi and Morris, 2008). Following from performance expectancy, future research should focus on identifying constructs that can add to the prediction of intention and behavior over and above what is already known and understood. In the study of information technology implementations in organizations, there has been a proliferation of competing explanatory models of individual acceptance of information technology. AlAwadhi and Morris (2008) noted that the present work advances individual acceptance research by unifying the theoretical perspectives common in the literature and incorporating four moderators to account for dynamic influences including organizational context, user experience, and demographic characteristics.

In addition, an empirical study by Fang, Li, and Liu (2008) suggests that performance expectancy, effort expectancy and social influence significantly predict managers intention to engage in knowledge sharing using web2.0. Fang, Li, and Liu (2008) examined the acceptance of an e-learning technology in secondary school in Peru. In the same study, Fang, Li, and Liu (2008) found behavioural intention to significantly predict use behaviour. Nassuora (2012) examined the acceptance of mobile telephone and found that performance expectancy, effort expectancy and social influence are predictors of behavioural intention. Also, Nassuora (2012) investigated the acceptance of 3G services in Taiwan and found performance expectancy and social influence as predictors of behavioural intention. Interestingly, the authors also found performance expectancy, effort expectation, social influence and facilitating conditions as predictors of use behaviour.

The reviewed literature puts a lot of emphasis on system performance expectancy in the different sectors in developed economies and focuses less on system performance expectancy in the cosmetics industry in developing countries such as Uganda. Similarly, there is much attention

drawn by researchers to system performance expectancy and organisational performance but provided inadequate literature on the association between system performance expectancy as a measure of ICT Systems on performance of business organisations such as the cosmetics industry who are the manufacturers of body and hair care products. On the other hand, much of the available literature is centered on developed economies and little or no research has been conducted on the subject in developing economies such as Uganda. This has left a literature gap which the study intends to close by carrying out a study on the effect of system performance expectancy in ICT systems on performance of business organisations in cosmetics manufacturing companies such as Movit Products Limited.

#### **2.3.4 Effort Expectancy in ICT Systems and Performance of Business Organisations**

Effort expectancy and social influence are theorized to influence behavioral intention to use a technology, while behavioral intention and facilitating conditions determine technology use. Venkatesh, et. al., (2003) have called for alternative theoretical mechanisms in order to foster progress in this mature stream of work. The integration of hedonic motivation, price value, and habit brings such new mechanisms (i.e., affect, monetary constraints, and automaticity) tied to the new constructs into the largely cognition- and intention-based effort expectancy. Second, by adapting and extending effort expectancy to include new constructs and altering existing relationships, this work furthers the generalizability of effort expectancy to a different context (i.e., consumer IT) that is an important step to advance a theory. From a practical standpoint, the rich understanding gained can help organizations in the consumer technology industry better design and market technologies to consumers in various demographic groups at various stages of the use curve.

There is empirical evidence to suggest that affective reactions (e.g., intrinsic motivation) may operate through effort expectancy (Venkatesh, 2000). Therefore, we consider any observed relationship between attitude and intention to be spurious and resulting from the omission of the other key predictors (specifically, performance and effort expectancies). This spurious relationship likely stems from the effect of performance and effort expectancies on attitude (Davis, 1989). The non-significance of attitude in the presence of such other constructs has been reported in previous model tests (Thompson, 1991), despite the fact that this finding is counter to what is theorized in TRA and TPB/DTPB. Given that we expect strong relationships in UTAUT between performance expectancy and intention, and between effort expectancy and intention, we believe that, consistent with the logic developed here, attitude toward using technology.

Davis (2001) found out that the effect expectancy was in the form of a three-way interaction the effect was moderated by gender and age such that it was more salient to younger workers, particularly men, thus supporting. Note that a direct effect for performance expectancy on intention was observed; however, these main effects are not interpretable due to the presence of interaction terms (Aiken and West, 1991). In Davis (2001), the effect of effort expectancy was via a three-way interaction the effect was moderated by gender and age (more salient to women and more so to older women). This pattern mirrors that for effort expectancy with the added caveat that social influences are more likely to be important in mandatory usage settings. The contingencies identified here provide some insights into the way in which effort expectancy change over time and may help explain some of the equivocal results reported in the literature. By helping to clarify the contingent nature of effort expectancy, this study sheds light on when effort expectancy is likely to play an important role in driving behavior and when it is less likely to do so. In the proposed study,

the researcher will correlate effort expectancy with customer satisfaction hence creating a nexus between the proposed and the earlier study.

As much as some studies have supported that the four predictive factors of UTAUT predicts intention and use behavior, results from some other studies suggest otherwise. AlAwadhi and Morris (2008) studied the Use of Online Community Weblog Systems, the results indicated that scales for the four constructs in UTAUT including performance expectancy, effort expectancy, social influence, and facilitating conditions have invariant true scores across most but not all subgroups. The authors expressed need for caution when interpreting UTAUT. AlAwadhi and Morris (2008) found performance expectancy and social influence to be non-significant predicting behavioural intention. Performance expectancy, effort expectancy and social influence were found to be non-significant in predicting intention in a study investigating the acceptance of an interface robot and a screen agent by elderly users. In bridging the research gap, the earlier study used quantitative approaches compared to this study that will rely on mixed methodological approaches.

The reviewed literature puts a lot of emphasis on system effort expectancy in the different sectors in developed economies and focuses less on system effort expectancy in ICT systems in the cosmetics industry in developing countries such as Uganda. Similarly, there is much attention drawn by researchers to system effort expectancy and organisational performance but provided inadequate literature on the effect of effort expectancy in ICT systems as a measure of system computerisation on performance of business organisations in the cosmetics industry such as manufacturers of body and hair care products. On the other hand, much of the available literature is centered on developed economies and little or no research has been conducted on the subject in developing economies such as Uganda. This has left a literature gap which the study intends to

close by carrying out a study on the effect of effort expectancy in ICT systems on performance of business organisations in the cosmetics manufacturing companies such as Movit products Limited.

## **2.4 Summary of the Literature Review**

In analysis, the reason for carrying out literature review was to get background information on the study, identify and fill the knowledge gap about the study. In this chapter, ICT Systems and performance of business organisations were examined according to the study objectives which were developed in relation to facilitating conditions, social influence, performance expectancy, effort expectancy and performance of business organisations. The study managed to identify and analyse the knowledge gaps amongst the various author's perspective. A review of ICT systems theories was done from which the theory that guided the study was chosen. From the review of the existing literature on the effect of ICT Systems on the performance of business organisations, it was established that ICT systems were vital in determining the performance of business organisations. Nonetheless, much of the existing literature is focused on developed economies with a lot of emphasis on the manufacturing sector and less on developing economies such as Uganda. The reviewed literature did not exhaustively relate to performance of business organisations especially cosmetics manufacturing companies.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

The study examined the effect of ICT systems on performance of business organizations in Uganda taking a case of Movit Products Limited. This chapter presents the methods that were used in this study. These methods include the research design, study area, study population, sample size and selection, sampling techniques and procedures. The chapter also presents the data collection methods, instruments and procedures, pre-testing the questionnaires, data analysis and measurement of variables.

#### **3.2 Research Design**

A descriptive cross sectional survey design was adopted in the study. According to Creswell (2009), a design is an overall plan of an empirical study. A cross sectional survey provided a systematic description that was as factual and as accurate as possible (Kothari, 2004). The cross sectional survey was preferred in order to enable a one-time investigation of the study problem. The descriptive cross sectional design also adopted both quantitative and qualitative approaches. Whereas quantitative approaches described the established relationships between the variables, the qualitative approaches enabled indepth investigation of the study problem.

#### **3.3 Study Population**

The study population comprised of employees and customers working at Movit Product Limited, Uganda . The study population was 322 respondents including 7 management committee members, 6 directors, 15 heads of departments & sections, 97 operations staff and 197 selected customers

(Movit Product Limited Annual Report, 2016). The views of the customers were provided by retailers, institutions, wholesalers, supermarkets, saloons, pharmacies, beauty schools, cosmetic shops and hotels. In this study, only customers that had been transacting with Movit Product Limited for a period of 5 years or more comprised the study. The researcher believed that this category of respondents were knowledgeable enough about his area of study and were able to avail him with the necessary data for the study.

### 3.4 Sample Size and Selection

The sample size of the study was 230 selected using the statistical tables by Krejcie and Morgan’s (1970) cited in Amin (2003). . The sampling procedures are presented in the table below

**Table 3. 1: Population, Sample Size and Sampling Techniques**

<b>Category of Respondents</b>	<b>Study population</b>	<b>Sample size</b>	<b>Sampling technique</b>
Management committee	7	5	Purposive sampling
Directors	6	4	Purposive sampling
Heads of Departments & Sections	15	14	Simple random sampling
Operations staff	97	80	Simple random sampling
Customers	197	127	Simple random sampling
<b>Total</b>	<b>322</b>	<b>230</b>	

Source: Movit Products Uganda Limited Information Desk (2015).

### 3.5 Sampling Techniques and Procedure

Both random (simple random) and non-random (purposive) sampling approaches were used in the study. In particular, simple random sampling technique was used to select population categories including Head of Departments, Operational Staff and the Customers. The technique was preferred to avoid bias in selecting those categories as it provided equal and independent chances to each of them (Creswell, 2003).

Purposive sampling technique on the other hand was used to select key informant categories including the Management committee and Directors. These were the population categories whom because of their positions and experiences were expected to have wide, deep but varying information. The sampling method therefore, enabled the researcher to use his judgement and hand pick only those who were assumed to have information deemed to be more relevant to the study (Sekaran, 2003).

### **3.6 Data Collection Methods**

Primary data was collected from management committee staff, directors, Heads of Departments & Sections, operations staff and customers. This was done by means of administering questionnaires and conducting interviews. On the other hand, secondary data was gathered by means of intensive reviews of existing literature such as Movit Products Uganda Limited, annual reports and other documents.

#### **3.6.1 Questionnaire Survey**

A questionnaire is a reformulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives (Kothari, 2004). The study used self-administered questionnaires that allowed the collection of quantified data from a large number of respondents. A questionnaire was used because it was cheap, a large group of respondents was covered within a short time, it also allowed in depth research, to gain firsthand information and more experience over a short period of time (Earl-Babbie, 2013). In this study, a five headed response rating using the Likert scale; (5. Strongly agree, 4. Agree, 3. Neutral (Don't know) 2. Disagree and 1. Strongly disagree) was used to ease the filling of the questionnaire.



### **3.6.2 Interview**

Interview method basically relied on face-to-face interviews with the respondents in a bid to generate detailed and first-hand information. This involved the researcher personally interacting with the selected respondents with a set of pre-determined questions that they were required to respond to on a one by one basis. The researcher interviewed top officials to get their views and opinions on customer satisfaction. An interview, therefore, allows the respondents to seek clarity and this also improves the relationship between research Assistants and the respondents. Structured interview guides were designed for the managers and assistant managers. This enabled the researcher to interact, probe and collect more accurate data from the respondents.

## **3.7 Data Collection Instruments**

The data collection instruments mainly included questionnaires and an interview guide.

### **3.7.1 Questionnaire**

Questionnaire is one of the primary sources of data collection. The tool is designed to collect information or data using both open and closed ended questionnaire. Amin (2005) describes a questionnaire as a self-report instrument used for gathering information about the variables of interest under investigation. The questionnaires contained interrelated questions about the subject being investigated and were based on the objectives and hypotheses of the study. The questionnaire was self-administered. In the questionnaire, two broad categories of questions were formulated: structured or closed-ended questions to collect quantitative data and unstructured or open-ended questions for qualitative data as recommended by (Mugenda & Mugenda, 1999).

### 3.7.2 Interview Guide

An interview is a tool that guides the dialogue between an interviewer and interviewee. It is an organized conversation aimed at gathering data about a particular topic (Junker & Pennink, 2010). The interview guide was used because it had the advantage of ensuring probing for more information, clarification and capturing facial expression of the interviewees (Ragin, 2007). One interview guide was administered to the selected groups of respondents. An interview guide is preferred to an interview schedule because it minimizes response errors and places the researcher in a better position to obtain accurate and detailed information from the respondents. Moreover, it is much more flexible than an interview schedule, thereby allowing for the collection of more and deeper information than a schedule does. The guiding interview questions were based on the specific objectives of the study and the research hypotheses.

## 3.8 Data Quality Control and Management

### 3.8.1 Validity

Validity is an assessment of whether an instrument measures what it aims to measure (Creswell, 2009). This was established by using a Content Validity index (CVI) through expert judgment of the items that were in the questionnaire. Each item in the questionnaire were rated by two or more experts in order to determine how valid the study instrument is.

$$\text{The CVI} = \left[ \frac{n}{N} \right] \times 100$$

Where;

n= Number of items rated as relevant by the judges.

N= Total number of items in the instrument

If the CVI is 0.7 and above, the instrument will then be considered valid (Amin, 2005).

**Table 3. 2: Validity**

Variable	Anchor	Content Validity Index
System Computerisation	5 Point	.882
ICT system performance	5 Point	.868

**Source:** Primary data (2017)

The measurements were consistent with the theoretical expectation, therefore, the data had construct validity. From the results all the content validity indices ranged from .868 to .882, therefore meeting the acceptable standards.

### 3.8.2 Reliability

Reliability is a measure of the questionnaire's consistency, in other words its precision of measurement (Earl-Babbie, 2011). According to Kothari (2004), reliability is dependability or trustworthiness, the degree to which an instrument consistently measures what it is measuring. The Cronbach's Alpha coefficient was used to measure the internal consistency and thus the reliability of the questionnaire. The SPSS (Statistical Package for the Social Science) computer program was used to compute coefficient values of each item in the questionnaire to obtain the coefficient value. The closer the value to one, the greater the reliability of the questionnaire.

Cronbach's basic equation for alpha

$$\alpha = \frac{n}{n-1} \left( 1 - \frac{\sum Vi}{V_{test}} \right)$$

n = number of questions

Vi = variance of scores on each question

V<sub>test</sub> = total variance of overall scores (not %'s) on the entire test

**Table 3. 3: Reliability**

Variable	Anchor	Content Validity Index
System Computerisation	5 Point	.818
ICT System performance	5 Point	.798

**Source:** Primary data (2017)

According to Sekaran (2003), coefficient alpha of 0.7 and above is considered adequate. From the results all the Cronbach alpha coefficients ranged from .798 to .818, therefore meeting the acceptable standards.

### **3.9 Data Collection Procedures**

Upon the approval of the research proposal by the Uganda Management Institute and having received an introductory letter the researcher went on to seek permission from, line head of department of information technology from Movit Products Uganda Limited before conducting the research. In addition, the researcher explained clearly the purpose of this study to the respondents so as to avoid misinterpretation and win their consent to participate in the study. All the information gathered was handled with utmost confidentiality. The researcher therefore evaluated and analyzed the adequacy of information in answering the research questions

### **3.10 Data Processing and Analysis**

Statistical analyses were used to describe an account for the observed variability in the behavioral data. Data was collected, coded and edited during and after the study to ensure completeness, consistency, accuracy, and removal of errors and omissions. It also involved identifying patterns, data analysis therefore involved qualitative and quantitative analysis.

### **3.10.1 Qualitative Data Analysis**

The data was processed and transcribed before being processed. In case of errors or unanswered questions, these were identified and corrected with clarity from the specific respondents. Data from interviews and focus group discussions was transcribed from oral into written format ready for analysis. Coding of all data was done by classifying it into meaningful, exhaustive and representative categories for purposes of data presentation and analysis.

### **3.10.2 Quantitative Data Analysis**

Quantitative data was expressed in numeric terms for analysis using a STATA (13.0). The researcher adopted Univariate analysis techniques in analyzing his data. Univariate analysis is the simplest form of quantitative (statistical) analysis. In addition to frequency distribution, tables, mean, standard deviation and other measures of central tendency were used in data analysis. The statistical programme was used in the calculation of descriptive statistics, frequency percentages, drawing of frequency tables and figures. This was well-suited for quantitative description. Analysis and explanations were made to give meaning to the collected data. Pearson correlation coefficient was used to analyse quantitative data. According to Sekaran (2003), a correlation study is most appropriate to conduct the study in the natural environment of an organization with minimum interference by the researcher and no manipulation.

### **3.11 Measurement of Variables**

The Likert scale was used as a measurement scale. A 5 Likert scale to be used on the questionnaire took this form: for instance 1. Strongly Disagree 2. Disagree 3. Don't Know 4. Agree 5. Strongly Agree. The nominal scale was used where numbers were assigned to various variables so as to identify those variables more easily and create sameness or difference.

### **3.12 Ethical Considerations**

The Principle of Voluntary Participation requires that the research participants are not coerced to participate in research activities. The prospective research participants were fully informed about the procedures involved in research and gave their consent to participate. Those who were not willing to provide information for the study, they were not coerced but eliminated from the list and this was because it is their right not to give information.

Closely related to the notion of voluntary participation is the requirement of formal consent. Informed consent was attained from the respondents that participated in the study by way of a consent form. The consent from all respondents was sought before interviews were conducted and the purpose and objectives of the study was carefully explained to the respondents. The participants were made aware of the purpose of the study, which was for academic purpose and that the findings were to be used for academic purposes only. They were also informed that the information they provided was to be kept confidential and their permission would be sought if it was to be published.

The researcher guaranteed the participants' confidentiality. The participants were assured that identifying information was not to be made available to anyone who was not directly involved in the study. The researcher made sure that the filled questionnaires were kept under key and lock and during the course of data analysis; the researcher monitored the entire process strictly to make sure that this information was not accessed by those who should not access it. Anonymity standard as a stronger guarantee of privacy was observed. The researcher designed the tools in such a manner that the respondents were not required to indicate their personal information leading to them such as names, phone numbers among others. Researcher was careful not to publish enough information that the participant could be identified.

The researcher obtained an introductory letter from the Uganda Management Institute introducing him to Movit to allow him to carry out research. He then introduced himself to the management of Movit and sought permission to carry out the study on the entity.

In order to avoid plagiarism and assign proper authority to a statement, the researcher ensured that all information downloaded from the internet was not directly incorporated into research without paraphrasing and acknowledging the sources. Researcher recognized and carried out proper citation of all the sources of literature that were used during the study.

Ethical standards also require that researchers not to put participants in a situation where they might be at risk of harm as a result of their participation. The researcher did not cause any emotional, physical and/or psychological harm to the respondents such as stressing the respondents, making them anxious and antagonizing their privacy while doing their work or during their social time and ensure objectivity during the research so as to eliminate personal biases and opinions.

## CHAPTER FOUR

### PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

#### 4.1 Introduction

The study examined the effect of ICT Systems on the performance of business organizations in Uganda taking a case of Movit Products Limited. This chapter provides a presentation, analysis and interpretation of the findings according to the objectives of the study. In particular, the chapter presents the response rate, the background characteristics of respondents and the empirical findings objective by objective.

#### 4.2 Response Rate

**Table 4. 1: Response Rate**

Data collection method	Target Response	Actual Response	Response Rate (%)
Questionnaire	221	191	86.4
Interview	09	07	77.7
Total	230	198	86

Source: Primary Data (2017)

From table 4.1 above, out of the total 221 questionnaires administered, 191 were completed and returned making a response rate of 86.4%. Then out the scheduled 9 interviews, only 7 were actually conducted implying a response rate of 77.7%. The overall response was 198 out of the targeted 230 suggesting overall response rate of 86%. The response rate was deemed good enough for the study since it was over and above the 60% provided by Sekaran (2003)



## Respondents' Background Characteristics

The background characteristics of the respondents at Movit such as sex, age group, marital status and level of education were observed. The findings are presented in the next sub-sections

### 4.2.1 Distribution of Respondents by Gender

The gender distribution of respondents is presented in Table 4.2 below

**Table 4. 2: Gender Distribution**

Gender	Frequency	Percentage
Male	109	55.1
Female	89	44.9
Total	198	100.0

**Source:** Primary Data (2017)

The results from Table 4.2 above show that 55.1% of the respondents were male whereas 44.9% were female. The gender disparity of respondents notwithstanding, the study was gender representative since both males and females were part of the sample. This implies that Movit Product Limited is an equal opportunity employer.

### 4.3 Respondent by Age Group Category

The age distribution of the respondents is presented in Table 4.3 below:

**Table 4. 3: Age Distribution**

Age	Frequency	Percent (%)
20-30 yrs	32	16.2
31-40 yrs	84	42.4
41-50 yrs	62	31.3
Above 50 yrs	20	10.1
Total	198	100.0

**Source:** Primary Data (2017)

The results in the Table 4.3 revealed that the majority of the respondents fell in the age brackets of 31-40 years and 41-50 years with percentages of 42.4% and 31.3% respectively whereas, 16.2% accounted for those respondents in the 20-30 years age group whereas, 10.1% was represented by those in the above 50 years age group. The results implied that the composition of the respondents was made up of staff and customers who were mature enough to understand the importance of system computerization in enhancing customer satisfaction at Movit.

#### 4.4 Marital Status

Findings on the marital status of the respondents are presented in Table 4.4 below

**Table 4. 4: Marital Status**

Tenure	Frequency	Percent (%)
Married	76	38.4
Single	105	53.0
Widowed	6	3.0
Divorced	11	5.6
Total	198	100.0

**Source:** Primary Data (2017)

From the results in table 4.4 above, it was observed that 53% of the respondents were single, 38.4% were married, 5.6% were divorced and 3% were widowed. This could imply that the study was not biased basing on marital status categories which made it representative and therefore, findings can be generalized to the target population

#### 4.5 Respondent Category by Level of Education

Frequency tabulation was used to present the level of education distribution of the respondents.

Table 4.5 below presented the results:

**Table 4. 5: Level of Education**

	Frequency	Percentage
Certificate	15	7.6
Diploma	67	33.8
Bachelors Degree	80	40.4
Masters Degree	27	13.6
Others	9	4.5
Total	198	100.0

**Source:** Primary Data (2017)

According to the results in Table 4.5, the majority of the respondents (40.4%) possessed degree level of education, 33.8% were diploma holders, those who had attained masters level of education accounted for 13.6%, the certificate holders accounted for 7.6% and 4.5% held other qualifications. From the findings, the majority of the responses were acquired from degree holders and diploma holders. Such respondents could be relied to inform the study

#### **4.6 Empirical Findings**

The findings in this study are based on the study objectives which included the effect of facilitating conditions ; social influence; performance expectancy; and effort expectancy on performance at Movit products Uganda limited. The variables are measured using a five point Likert scale and the results are presented in descriptive tables, showing percentages and item means of responses under each variable. The results are further explained using the Pearson correlation matrix in order to show relationships between the study variables. The results from the quantitative source are compared with qualitative ones. Statistical tables were used for easier understanding and interpretations.

#### 4.6.1 Research Question One: Facilitating Conditions in ICT Systems

This section gives a description of research objective one which was assessed using a variety of questions as per Section I of the Instrument (Appendix D); how facilitating conditions in ICT Systems affect performance at movit products Limited using 5 questions, each respondent was required to give the extent to which he agreed with statements provided. The resulting summary statistics are in Table 4.6;

**Table 4. 6: Facilitating Conditions in ICT Systems and Performance**

Item scale	Min	Max	Mean	Std Dev
The employees have basic knowledge and training necessary to use computers and related ICTs to accomplish tasks.	1	5	3.67	.689
Workshops are held to help embed the employees with new ICT skills	1	5	3.70	.684
There is an ICT policy in MPL	1	5	3.79	.789
The ICT Policy is effectively being utilized.	1	5	3.64	.556
The management of MPL gives Technical support to employees on matters related to ICT	1	5	3.65	.652
Adequate number of staff is employed in the ICT Department.	1	5	3.72	.752
MPL Employees have resources available in the organisation/home to use computers and related ICTS for work performance.	1	5	3.65	.789
The company computer based ICTs and related equipments have Technical user manuals to guide on technical related aspects.	1	5	3.77	.654

**Source:** Primary data (2017)

**Key:** Min represents minimum scale of strongly disagree (1); Max represents maximum scale of strongly agree (5); mean represents the average response on each item; Std Dev represents the standard deviation.

With respect to whether the employees have basic knowledge and training necessary to use computers and related ICTs to accomplish tasks, the mean = 3.67 which corresponded to agreed indicated the majority of the respondents agreed that the employees have basic knowledge and training necessary to use computers and related ICTs to accomplish tasks.

Responses to the question as to whether workshops are held to help embed the employees with new ICT skills, the mean = 3.70 above the median score of three indicated that workshops are held to help embed the employees with new ICT skills.

As to whether there is an ICT policy in MPL, the mean = 3.79 was above the median score, three, which on the five-point Likert scale used to measure the items indicated that there is an ICT policy in MPL.

Responses to the question as to whether the ICT Policy is effectively being utilized, the mean = 3.64 indicated that the ICT Policy is effectively being utilized.

With respect to whether the management of MPL gives technical support to employees on matters related to ICT. The mean = 3.65 indicated the majority of the respondents agreed that management of MPL gives technical support to employees on matters related to ICT

As to whether adequate number of staff is employed in the ICT Department, the mean = 3.72 meant that the respondents the respondents agreed that adequate number of staff is employed in the ICT Department.

Responses to the question as to whether MPL Employees have resources available in the organisation/home to use computers and related ICTS for work performance, the mean = 3.65 indicated that MPL Employees have resources available in the organisation/home to use computers and related ICTS for work performance.

As to whether the company computer based ICTs and related equipment have Technical user manuals to guide on technical related aspects, the mean = 3.77 indicated that the company computer based ICTs and related equipment have technical user manuals to guide on technical related aspects.

This is confirmation that staff at Movit had the required equipment, hardware and software that were necessary in using computerized systems. In line with the quantitative results on facilitating conditions above, the results from the interview conducted with the Head HR affirmed that;

*“staff received the required training whether on the job or off job to be able to operate computerized systems and that when operating these system they were required to do so in line with existing policies. Likewise to be able to efficiently perform their roles using the systems, they were provided with the required equipment, hardware and software”.*

#### 4.7 Hypothesis Testing One: Facilitating Conditions in ICT Systems and Performance

To assess the association between facilitating conditions in ICT Systems and performance, correlation was done and then Pearson’s correlation Co-efficient (r) technique was used to assess the nature and magnitude of the relationship. Table 4.7 shows Pearson’s correlation Coefficient for the two variables which include; facilitating conditions in ICT Systems and performance

**Table 4. 7: Facilitating Conditions in ICT Systems and Performance**

		Facilitating Conditions in ICT Systems	Performance
Facilitating Conditions in ICT Systems	Pearson Correlation	1	.545**
	Sig. (2-tailed)		.000
Performance	Pearson Correlation	.545**	1
	Sig. (2-tailed)	.000	
**.			<i>Correlation is significant at the 0.01 level (2-tailed).</i>

**Source:** Primary Data (2017)

Table 4.7 shows that, Pearson’s Correlation Coefficient for facilitating conditions in ICT Systems and Performance was  $r = .545^{**}$ , which was positive and significant with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a significant positive relationship between facilitating conditions in ICT Systems and performance of business organisations at

the one percent level of significance. This implied that there is availability of facilitating conditions in ICT Systems which supported performance at the company. Therefore an improvement on facilitating conditions in ICT Systems will lead to an improvement on business performance at Movit Products Limited. This position was also shared by top executives such as the executive committee members, top managers and heads of departments who revealed that facilitating conditions in ICT systems were paramount in promoting performance of the business thereby resulting into customer satisfaction, customer loyalty, customer retention, reduced attrition and churn rates at the company. From the findings, it is evident that facilitating conditions in ICT Systems as a component used to measure ICT systems at Movit affected the performance at the company in regard to customer satisfaction, customer loyalty, customer defection, attrition and churn rates.

#### **4.4.2 Research Question Two: Social Influence in ICT Systems and Performance**

This section gives a description of research objective two which was examined using a variety of questions as per Section II of the research tool (Appendix I); what is the contribution of social influence in ICT Systems on performance of Movit products Limited? This research objective was conceptualized using 10 questions which required each respondent to do self-rating on social influence. Responses were based on Likert scale ranging from strongly disagree (1) to strongly agree (5), although these were subsequently categorized into agree and disagree sections. The resulting summary statistics are in Table 4.8;

**Table 4. 8: Social Influence in ICT Systems and Performance**

<b>Items</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
The community influences the type of ICT system adopted in MPL	1	5	3.05	.843
It is easy to improve the image of Movit Products using the improved system computerization	1	5	3.56	.721
The community has supported the use of ICT	1	5	3.32	.674
The company image has improved because of system computerization	1	5	3.82	.761
The company norms favour ICT Application	1	5	3.62	.669
There is strong team work/peer support for system computerization	1	5	3.78	.769
People who are important to MPL employees think that they should use computer and computer related ICTs for their personal and official work.	1	5	3.00	.626
My fellow workers think that I should use computer and computer related ICTs for my work.	1	5	3.55	.789
In general MPL management expects me to use computer and other ICTs related equipments in the company.	1	5	3.72	.774
MPL employees have no any other choice other than using computer and related ICTs for my routine tasks.	1	5	3.82	.861

**Source:** Primary data (2017)

**Key:** Min represents minimum scale of strongly disagree (1); Max represents maximum scale of strongly agree (5); mean represents the average response on each item; Std Dev represents the standard deviation.

Basing on the study results in Table 4.8, the majority of the respondents agreed that it was easy to improve the image of Movit Products using the improved system computerization (mean=3.56), the company image had improved because of system computerization (mean=3.82) and that the company norms favoured ICT application (mean=3.62). This is indication that the company's advancement from traditional manual systems to computerized systems had a positive corporate image to the public. Similarly, there was agreement that there was strong team work/peer support for system computerization (mean=3.78), workers thought of their colleagues to use computer and computer related ICTs for their work (mean=3.55). Majority of respondents agreed that in general MPL management expected staff to use computer and other ICTs related equipments in the company (mean=3.72) and MPL employees had no any other choice other than using computer and



related ICTs for my routine tasks (mean=3.82) which was indication that staff were to conduct their duties while using ICTs provided by the company. In line with the quantitative results on social influence above, the results from the interview with the Head IT confirmed that;

*“staff received a lot of influence to use computers and ICTs from different sources among which included customers, superiors, fellow staff and other external stakeholders such as other organizations.”.*

#### 4.9 Testing Hypothesis Two: Social Influence in ICT Systems and Performance

To verify the results of objective two, correlation analysis was done where by all responses for each variable; social influence in ICT Systems and performance were aggregated into a single index and then Pearson’s correlation Co-efficient (r) technique was used to assess the nature and magnitude of the relationship. Table 4.9 gives Pearson’s correlation Coefficient for the two variables which include; social influence and performance.

**Table 4. 9: Social Influence in ICT Systems and Performance**

		Social Influence in ICT Systems	Performance
Social Influence in ICT Systems	Pearson Correlation	1	.345**
	Sig. (2-tailed)		.000
Performance	Pearson Correlation	.345**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

**Source:** Primary data (2017)

Table 4.9 shows that, Pearson’s Correlation Coefficient for social influence in ICT systems and performance was  $r = .345^{**}$ , which was significant positive with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a significant positive relationship between social influence in ICT Systems and performance of business organisations at the one percent level of

significance. From the results, 34.5% of the performance of business organisations was accounted for by social influence. An improvement on social influence in ICT Systems will lead to a significant improvement on the performance. This implied that in order to for the company to benefit from the contribution that may arise from staff being influenced to use ICTs, management should put in place the necessary structures and procedures as this will promote the performance at the company.

#### 4.10 Research Question Three: Performance Expectancy in ICT Systems and Performance

This section gives a description of research objective three which was examined using a variety of questions as per Section III of the research tool (Appendix I); what is the effect of Performance expectancy in ICT systems on performance of business organisations? This research objective was conceptualized using 8 questions which required each respondent to do self-rating on performance expectancy. Responses were based on Likert scale ranging from strongly disagree (1) to strongly agree (5), although these were subsequently categorized into agree and disagree sections. The resulting summary statistics are in Table 4.10;

**Table 4. 10: Performance Expectancy in ICT Systems and Performance**

Items	Min	Max	Mean	SD
Performance expectancy provides a useful tool for managers needing to assess the likelihood of success for new technology.	1	5	3.75	.834
Performance expectancy provides a useful tool for meeting customer needs	1	5	3.86	.716
By use of ICT the workers meet the expectations of their bosses	1	5	3.62	.745
By use of ICT, the workers performance/use has improved	1	5	3.82	.616
The expectations of the customers are high given the improved levels of ICT application in MPL	1	5	3.68	.691
Computer and related ICTs are very useful in enhancing performance of my routine tasks.	1	5	3.64	.672
Computers and related ICTs are of no use in executing my routine tasks.	1	5	2.00	.963
I do not see the importance of computers and related ICT in my work.	1	5	2.55	.891

**Source:** Primary data (2017)

**Key:** Min represents minimum scale of strongly disagree (1); Max represents maximum scale of strongly agree (5); mean represents the average response on each item; Std Dev represents the standard deviation.

With respect to whether performance expectancy provides a useful tool for managers needing to assess the likelihood of success for new technology, the mean = 3.75 indicated the majority of the respondents agreed that performance expectancy provides a useful tool for managers needing to assess the likelihood of success for new technology.

Responses to the question as to whether performance expectancy provides a useful tool for meeting customer needs, the mean = 3.86 indicated that performance expectancy provides a useful tool for meeting customer needs.

As to whether by use of ICT the workers meet the expectations of their bosses, the mean = 3.62 indicated that by use of ICT the workers meet the expectations of their bosses .

Responses to the question as to whether by use of ICT, the workers performance/use has improved, the mean = 3.82 indicated that by use of ICT, the workers performance/use has improved.

With respect to whether the expectations of the customers are high given the improved levels of ICT application in MPL. The mean = 3.68 indicated the majority of the respondents agreed that the expectations of the customers are high given the improved levels of ICT application in MPL

As to whether computer and related ICTs are very useful in enhancing performance of my routine tasks, the mean = 3.64 meant that the respondents the respondents agreed that computer and related ICTs are very useful in enhancing performance of my routine tasks.

Responses to the question as to whether computers and related ICTs are of no use in executing my routine tasks, the mean = 2.00 indicated that computers and related ICTs are of use in executing my routine tasks..

As to whether they do not see the importance of computers and related ICT in my work., the mean = 2.55 indicated that they do see the importance of computers and related ICT in my work.. This is confirmation that the computers and related ICTs were relevant in supporting staff to do their routine tasks. In line with the quantitative results on performance expectancy above, the Head HR, Head Finance and Head IT acknowledged that;

*“computers and related ICTs were important in promoting effective and efficient performance of staff roles in the required quality standards set by the company which in process helped the company products meet customer expectations”.*

#### 4.11 Testing Hypothesis Three Performance Expectancy in ICT Systems and Performance

To present the results of objective three, correlation analysis was used where by all responses for each variable; performance expectancy in ICT Systems and performance were aggregated into a single index and then Pearson’s correlation Co-efficient (r) technique was used to assess the nature and magnitude of the relationship. Table 4.10 gives Pearson’s correlation Coefficient for the two variables which include; performance expectancy in ICT Systems and performance

**Table 4. 11: Performance Expectancy in ICT Systems and Performance**

		Performance Expectancy in ICT Systems	Performance
Performance Expectancy in ICT Systems	Pearson Correlation	1	.430**
	Sig. (2-tailed)		.000
Performance	Pearson Correlation	.430**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

**Source:** Primary data (2017)

The results in table 4.11 shows that, Pearson’s Correlation Coefficient for performance expectancy in ICT Systems and performance was  $r = .430^{**}$ , which was a significant positive with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a positive relationship

between performance expectancy in ICT systems and performance of business organisations at the one percent level of significance. According to the results, 43% of performance of ICT system at Movit was accounted for by performance expectancy in ICT Systems. An improvement on performance expectancy in ICT Systems will lead to an improvement on performance at Movit Products Limited. From the results, the study revealed that management had made efforts to promote performance expectancy in ICT Systems at the company by putting in place systems, processes and procedures to be followed by staff when performing their roles, much as there were still challenges faced in their performance expectancy. In order to achieve business goals and continuous development, an organization is required to design and implement proper performance targets and goals with support from ICT Systems.

#### **4.12 Research Question Four: Effort Expectancy in ICT Systems and Performance**

This section gives a description of research objective four which was examined using a variety of questions as per Section IV of the research tool (Appendix I); How does effort expectancy in ICT Systems affect performance at Movit products Limited? This research objective was conceptualized using eleven questions which required each respondent to do self-rating on effort expectancy in ICT Systems. Responses were based on Likert scale ranging from strongly disagree (1) to strongly agree (5), although these were subsequently categorized into agree and disagree sections. The resulting summary statistics are in Table 4.11;

**Table 4. 12: Effort Expectancy in ICT Systems and Performance**

Items	Min	Max	Mean	SD
Employees contribution is now felt given the computerization of the system	1	5	3.79	.579
Workers work with great enthusiasm given the availability of ICT facilities	1	5	3.67	.691
ICT has eased use at Movit	1	5	3.69	.667
System computerization has made work less complex	1	5	2.97	.677
Tasks are completed faster with information communication	1	5	2.08	.665
Computers and related ICTs/equipment are easy and simpler to use for my routine work.	1	5	3.03	.770
Computers and related ICTs/equipment are not easy to use for my routine work.	1	5	3.95	.640
Navigating computers and related ICTs is very discouraging.	1	5	3.41	.739
I plan to use computer and related ICTs in the next 6 months.	1	5	3.64	.668
I predict that I would use computer and related ICTs in the next 6 months	1	5	3.08	.743
Intend to use computers and related ICTs in the next 6 months	1	5	3.68	.739
I have used computers and related ICTs and equipment lot in the past 4 weeks	1	5	3.89	.767
I have been using computer and related ICTs regularly(daily) in the past 4 weeks	1	5	3.47	.647
I will continue to use computer and company related ICTs on a daily basis and in future	1	5	3.78	.765

**Source:** Primary data (2017)

**Key:** Min represents minimum scale of strongly disagree (1); Max represents maximum scale of strongly agree (5); mean represents the average response on each item; Std Dev represents the standard deviation.

According to the results in table 4.12, the majority of the respondents agreed that employees contribution was now felt given the computerization of systems (mean=3.79), staff worked with great enthusiasm given the availability of ICT facilities (mean=3.67) and ICTs had eased use at Movit (mean=3.69). Likewise, respondents planned to use computers and related ICTs (mean=3.64) and had the intention to use computers and related ICTs (mean=3.68). Others showed that they had used computers and related ICTs and equipment lot previously (mean=3.89) and would continue to use computers and company related ICTs on a daily basis and in future

(mean=3.78). On the other hand, computers and related ICTs/equipment were not easy to use for routine work (mean=3.95), system computerization had not made work less complex (mean=2.97) and tasks were not completed faster with the availability of ICTs (mean=2.08). This is implication that much as Movit was focused on a companywide computerisation of system, care should be taken to ensure that the challenges that came with ICT Systems were identified and addressed so as to full benefit from the advantages of using ICTs in work processes. In support of the above results, some of the Heads of the Finance, Sales and Distribution, IT and HR attested that;

*“the company paid a lot of attention to the use of ICTs in performing work activities and used them to be able to meet customer preferences, monitor changes in customer needs, understand of customers’ needs. However, overtime this had shown that ICTs also posed their own challenges which had drawn the attention of management”.*

#### 4.13 Testing Hypothesis four: Effort Expectancy in ICT Systems and Performance

To verify the association between effort expectancy and the performance of ICT systems , correlation was done where by all responses for each variable and aggregated into a single index and then Pearson’s correlation Co-efficient (r) technique was used to assess the nature and magnitude of the relationship. Table 4.13 gives Pearson’s correlation Coefficient for the two variables which include; effort expectancy in ICT Systems and performance of business organisations.

**Table 4. 13: Effort Expectancy in ICT Systems and Performance**

Variables		Effort Expectancy in ICT Systems	Performance
Effort Expectancy in ICT Systems	Pearson Correlation	1	.378**
	Sig. (2-tailed)		.000
Performance	Pearson Correlation	.378**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

**Source:** Primary data (2017)

The results in Table 4.13 shows that, Pearson's Correlation Coefficient for effort expectancy in ICT Systems and performance was  $r = .378^{**}$ , which was a significant positive with probability value ( $p = 0.000$ ) that is less than  $\alpha = 0.01$  level of significance showing a significant positive relationship between effort expectancy in ICT Systems and performance of business organisations at the one percent level of significance. From the results, 37.8% of the performance of Movit was accounted for by effort expectancy. This implied that in order to realize desirable performance of business organisations, management should embark on ensuring that the available systems are less complex, easy to used and are useful as this will enhance customer loyalty. This provided a basis for chapter five which considered the summary of the findings, discussion, conclusions and recommendations.



## **CHAPTER FIVE**

### **SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The study examined the effect of ICT systems on the performance of business organizations in Uganda taking a case of Movit Products Limited. This chapter presents the discussion of results presented in chapters four and conclusions drawn from the presentation. The chapter presents a short summary of the purpose of the study and the research findings, followed by the set of recommendations, limitations of the study and areas of further research.

#### **5.2 Summary of the Findings**

##### **5.2.1 Facilitating Conditions in ICT Systems and Performance**

The findings validate that, facilitating conditions in ICT Systems which were composed of training, technical support and IT policies were significant in determining the performance. This was confirmed by the findings from the management staff who were the key informants and the correlation results which indicated a significant and positive relationship between facilitating conditions in ICT Systems and performance of business organisations ( $r=0.545^{**}$ ).

##### **5.2.2 Social Influence in ICT Systems and Performance**

According to the findings, there was a positive and significant effect between social influence in ICT Systems and the performance of business organisations  $r=.345^{**}$ . Finding implied that in order to realize efficiency in the performance of ICT systems, there was need to address issues concerned with subjective norms among staff, provide peer support and improve the image of the company.

### **5.2.3 Performance Expectancy in ICT Systems and Performance**

The findings established that performance expectancy in ICT Systems influenced the performance of ICT systems at the company which was an implication that the existence of perceived usefulness, relative advantage and outcome expectations was paramount. These results are also in agreement with the regression results which showed that performance expectancy predicted performance of business organisations ( $r=.430^{**}$ ).

### **5.2.4 Effort Expectancy in ICT Systems and Performance**

The findings authenticated that effort expectancy in ICT Systems was an important determinant of the performance ( $r=0.378^{**}$ ). This implied that emphasis should be put on effort expectancy in regard to ease of contribution, minimal complexity and ease of use which would enhance the performance at Movit Product Limited.

## **5.3 Discussion of the Findings**

A discussion of the findings was carried out following the study objectives. Here the researcher assessed how the findings of the study were in agreement or disagreement with extant literature that was reviewed.

### **5.3.1 Facilitating Conditions in ICT Systems and Performance**

The findings revealed that facilitating conditions in ICT Systems which were composed of training, technical support and IT policies were significant in determining performance of ICT systems at Movit. This is supported by AlAwadhi and Morris (2008) who revealed that facilitating conditions influenced the use of technology and also predicted intention. In situations where an individual believes that support to use technology is erratic, influence on intentions to use technology will be significant. However, where the support is consistent, facilitating conditions are expected to

directly influence use behaviour. It is therefore expected that facilitating conditions will predict use behavior. The role of facilitating conditions in technology acceptance decisions is complex and subject to a wide range of contingent influences. This implied that emphasis on facilitating conditions would enhance the customer loyalty, reduce customer defection, attrition and churn rates among others. Therefore, adequate facilitating conditions enhances customer loyalty and reduces the likelihood that customers will be lost by the company to competition due to failure by the company to meet customer expectations. The facilitating conditions help to impart technical skills and knowledge to employees that is relevant in performing their duties, offer technical support required by employees which all is enshrined in the IT policy of the company.

### **5.3.2 Social Influence in ICT Systems and Performance**

The findings showed that social influence in ICT Systems had a positive influence on performance at Movit was confirmation that in order to realize efficiency in performance better there was need to address issues concerned with subjective norms among staff, provide peer support and improve the image of the company as this would translate into performance. In support of the findings, Lubega (2012) posits that social influence can directly affect intention to use technology. Superiors, faculties and peers of students can influence their overall behavioural intention to use ICT provided for learning. According to UTAUT, social influence is theorized to influence behavioral intention to use a technology, while behavioral intention and facilitating conditions determine technology use. Social influence can directly affect intention to use technology. Superiors, faculties and peers of employees can influence their overall behavioural intention to use ICT provided for work. This showed that that emphasis on social influence in regard to paying attention to issues to do with subjective norms, peer support and image during system computerisation was paramount in promoting performance of the business in terms of

customer loyalty and reducing customer defection, attrition and churn rates which in turn promoted performance at the company. Therefore, the availability of positive influence from peers, line managers, customers and others determines the performance which in turn enables customers to remain satisfied and loyal to the company.

### **5.3.3 Performance Expectancy and Performance**

The findings established that performance expectancy in ICT Systems influenced the performance at the company which was an implication that the existence of perceived usefulness, relative advantage and outcome expectations was paramount in promoting performance. This is justification that in order to attain efficient and performance, there was a need to ensure that perceived usefulness, relative advantage and outcome expectations at Movit. Performance expectancy in ICT Systems is a strong determinant of intention. This is because performance expectancy measures the productivity enhancement and time and cost saving in relation to the adoption of ICTs. AlAwadhi and Morris (2008) show that positive performance expectation increases users' intention to adopt technologies and in turn enhance performance. People tend to use an application to the extent they believe it will aid their performance with the aim of deriving satisfaction. Hence online systems that users think are useful are more likely to be accepted by the users. Cheng, Liu, and Qian (2008) found that performance expectancy determined users behavioural intention towards internet banking. The findings show that when the users of a system or ICTs perceive them to be useful, to have relative advantage and also expect them to provide required outcomes, this will trigger their acceptance of the system and therefore use the system towards meeting customers expectations. Therefore, when lives up to its expected performance, this will enhance customer satisfaction, customer loyalty, customer retention, satisfaction and reduce the likelihood of customers being lost to competition due to failure by the

company to meet customer expectations. Through performance expectancy the company will be able to ensure that the establishment of the system is perceived to be useful by the users, the system offers relative advantage to the previous system and the system has the capacity to produce quality work.

#### **5.3.4 Effort Expectancy in ICT Systems and Performance**

The findings showed that effort expectancy determined performance. This implied that emphasis should be put on effort expectancy in regard to ease of contribution, minimal complexity and ease of use which would enhance the performance. According to Davis (2001), effort expectancy is categorized in the form of a three-way interaction the effect is moderated by gender and age such that it was more salient to younger workers, particularly men, thus supporting. Note that a direct effect for performance expectancy on intention was observed; however, these main effects are not interpretable due to the presence of interaction terms (Aiken and West, 1991). This pattern mirrors that for effort expectancy with the added caveat that social influences are more likely to be important in mandatory usage settings. The contingencies identified here provide some insights into the way in which effort expectancy change over time and may help explain some of the equivocal results reported in the literature. By helping to clarify the contingent nature of effort expectancy, this study sheds light on when effort expectancy is likely to play an important role in driving behavior and when it is less likely to do so. From the discussion, it can be concluded that the company's emphasis on making sure effort expectancy is observed in regard to ease of contribution, complexity and ease of use would in turn enhance performance in regard to customer satisfaction, customer loyalty and reducing customer defection, attrition and churn rates which in turn promoted performance at the company

## **5.4 Conclusions**

The study concluded that all factors including facilitating conditions, social influence, performance expectancy and effort expectancy positively affected the performance at Movit Products limited.

From the results, correlation analysis was used to present the results of the study objectives which showed significant relationship between facilitating conditions and performance; social influence and performance; performance expectancy; and effort expectancy and performance.

For this reason, this study attempted to closed this literature gap by conducting a study on the effect of ICT Systems on performance of business organisations. The study provides officers in the cosmetics sector and other stakeholders further understanding by testing how the measures of ICT systems are affected by the measures of performance. All of these contribute valuable information for managers, financial analysts, investors and supervisors when they make relevant decisions. Another contribution of the study is that cosmetics companies currently have better knowledge and understanding of the effect of ICT Systems on performance of Cosmetics manufacturing businesses.

## **5.5 Recommendations**

In light of the research findings, the following main recommendations were made:

### **5.5.1 Facilitating Conditions in ICT Systems and the Performance**

- Management of business organizations should promote policy formulation, training and ensure there is adequate technical support in the company. Corporation should develop, implement and regularly review policies that support facilitating conditions for ICT systems as a way of providing guidelines that should be following when operating the systems. Continually train

employees who will in turn pass the knowledge to their customers hence the issue of perception will be dealt with. Training will help improve confidence as well as improve innovation.

### **5.5.2 Social Influence in ICT Systems and the Performance**

- Management of business organizations should ensure that ICT Systems fully perform well as this enhance company image to the public. Develop clear guidelines for teamwork as well as draft clear roles and responsibilities of employees and departments in order to achieve team work. Such guidelines should be made available to the employees so as to create a smooth working environment where peer support is promoted. The management should distribute responsibilities to staff allowing them to independently conduct decision making when performing their roles. Therefore, it is important to understand the advantages of social influence which is paramount in fostering the performance of business organisations.

### **5.5.3 Performance Expectancy in ICT Systems and Performance**

- Business organizations should promote awareness with respect to ease use, security, timely, accessibility and convenience of systems used at the company should be created to staff. System computerisation has optimistic future because of its easy-to-use. Business company should seek to collaborate with internet service providers so as to gain high quality internet infrastructure to enable the company offer better quality services and at the same time enhance accessibility. There is need to carry out customer surveys so as to understand what their customer's needs are and as they develop their system computerization strategy then they will formulate consumer driven strategies.

#### **5.5.4 Effort Expectancy in ICT Systems and Performance**

- Management should ensure that ICT Systems easily contribute to meeting customer expectations, the systems are less complex and are easy to used by staff. In order to realize effective capacity utilization of the ICTs, there should be a move from use of ICTs for elementary work such word processing and integrate the current systems with customized electronic management programmes which promote effective service delivery. Benchmark other corporations that have been able to efficiently carryout ICT system. This should be supported with stakeholder involvement as a means to bring all users on board.

#### **5.6 Areas for Further Study**

- i) The researcher only focused on four components, that is; facilitating conditions, social influence, performance expectancy and effort expectancy not considering other dimensions used by other researchers to measure ICT Systems. Each of these components has broad areas which can be researched on in relation to performance of business organisations.
- ii) The study took a form of cross sectional study but to study the true nature of relationship between system computerisation and customer satisfaction, a longitudinal study is more appropriate, customer satisfaction is a complex concept and difficult to measure objectively as it is influenced by a wide range of variables that could be identified for further studies.
- iii) A similar study may be carried out on other private organisations and manufacturing companies to assess the association between facilitating conditions, social influence, performance expectancy and effort expectancy on performance of business organisations.



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## APPENDICES

### Appendix I: A Questionnaire for top, Middle and Lower Level Staff of Movit Products

#### Limited

Dear respondent,

I am Sylvester Muhereza a participant at Uganda Management Institute pursuing a Master's Degree in Business Administration. I am carrying out a research on ICT Systems and performance of business organisations taking a case analysis of Movit Products Uganda Limited. Therefore I am requesting you to fill this questionnaire as honestly as possible so that I am able to produce tangible and quality work that can be used in understanding ICT systems and performance of business organisations. This study is purely academic and the information given herein will remain confidential, and will not serve any other purpose. Further, no financial incentives shall be advanced to any of the participants in form of pay or allowance for participating in this study, and you are kindly requested to participate in the study.

#### SECTION A: Background Information

Please tick in the column below the specified variable.

Age	20-30 yrs	31-40 yrs	41-50 yrs	Above 50 yrs		
	1	2	3	4		
Sex	Male	Female				
	1	2				
Marital Status	Married	Single	Widowed	Divorced		
	1	2	3	4		
Highest Level of Education	Certificate	Diploma	Bachelors Degree	Masters Degree	PhD	Others Specify
	1	2	3	4	5	6

#### SECTION B: Facilitating Conditions

Please indicate the extent to which you agree or disagree with the following statements. Select the most appropriate: 1-Strongly Disagree (SD) 2-Disagree (D) 3- Not Sure (NS) 4-Agree (A) 5-Strongly Agree (SA)

A	Items	SD	D	NS	A	SA
1	The employees have basic knowledge and training necessary to use computers and related ICTs to accomplish tasks.	1	2	3	4	5
2	Workshops are held to help embed the employees with new ICT skills	1	2	3	4	5
3	There is an ICT policy in MPL	1	2	3	4	5
4	The ICT Policy is effectively being utilized.	1	2	3	4	5
5	The management of MPL gives Technical support to employees on matters related to ICT	1	2	3	4	5
6	Adequate number of staff is employed in the ICT Department.	1	2	3	4	5
7	MPL Employees have resources available in the organisation/home to use computers and related ICTS for work performance.	1	2	3	4	5
8	The company computer based ICTs and related equipments have Technical user manuals to guide on technical related aspects.	1	2	3	4	5

**SECTION C: Social Influence**

Please indicate the extent to which you agree or disagree with the following statements. Select the most appropriate: 1-Strongly Disagree (SD) 2-Disagree (D) 3- Not Sure (NS) 4-Agree (A) 5-Strongly Agree (SA)

	Items	SD	D	NS	A	SA
9	The community influences the type of ICT system adopted in MPL	1	2	3	4	5
10	It is easy to improve the image of Movit Products using the improved system computerization	1	2	3	4	5
11	The community has supported the use of ICT	1	2	3	4	5
12	The company image has improved because of system computerization	1	2	3	4	5
13	The company norms favour ICT Application	1	2	3	4	5
14	There is strong team work/peer support for system computerization	1	2	3	4	5
15	People who are important to MPL employees think that they should use computer and computer related ICTs for their personal and official work.	1	2	3	4	5
16	My fellow workers think that I should use computer and computer related ICTs for my work.	1	2	3	4	5
17	In general MPL management expects me to use computer and other ICTs related equipments in the company.	1	2	3	4	5
18	MPL employees have no any other choice other than using computer and related ICTs for my routine tasks.	1	2	3	4	5

**SECTION D: Performance Expectancy**

Please indicate the extent to which you agree or disagree with the following statements. Select the most appropriate: 1-Strongly Disagree (SD) 2-Disagree (D) 3- Not Sure (NS) 4-Agree (A) 5-Strongly Agree (SA)

C	Items	SD	D	NS	A	SA
19	Performance expectancy provides a useful tool for managers needing to assess the likelihood of success for new technology.	1	2	3	4	5
20	Performance expectancy provides a useful tool for meeting customer needs	1	2	3	4	5
21	By use of ICT the workers meet the expectations of their bosses	1	2	3	4	5
22	By use of ICT, the workers performance/use has improved	1	2	3	4	5
23	The expectations of the customers are high given the improved levels of ICT application in MPL	1	2	3	4	5
24	Computer and related ICTs are very useful in enhancing performance of my routine tasks.	1	2	3	4	5
25	Computers and related ICTs are of no use in executing my routine tasks.	1	2	3	4	5
26	I do not see the importance of computers and related ICT in my work.	1	2	3	4	5

**SECTION E: Effort Expectancy**

Please indicate the extent to which you agree or disagree with the following statements. Select the most appropriate: 1-Strongly Disagree (SD) 2-Disagree (D) 3- Not Sure (NS) 4-Agree (A) 5-Strongly Agree (SA)

	Items	SD	D	NS	A	SA
27	Employees contribution is now felt given the computerization of the system	1	2	3	4	5
28	Workers work with great enthusiasm given the availability of ICT facilities	1	2	3	4	5
29	ICT has eased use at Movit Products Uganda Limited	1	2	3	4	5
30	System computerization has made work less complex	1	2	3	4	5
31	Tasks are completed faster with information communication	1	2	3	4	5
32	Computers and related ICTs/equipment are easy and simpler to use for my routine work.	1	2	3	4	5
33	Computers and related ICTs/equipment are not easy to use for my routine work.	1	2	3	4	5
34	Navigating computers and related ICTs is very discouraging.	1	2	3	4	5

35	I plan to use computer and related ICTs in the next 6 months.	1	2	3	4	5
36	I predict that i would use computer and related ICTs in the next 6 months	1	2	3	4	5
37	Intend to use computers and related ICTs in the next 6 months	1	2	3	4	5
38	I have used computers and related ICTs and equipment lot in the past 4 weeks	1	2	3	4	5
39	I have been using computer and related ICTs regularly(daily) in the past 4 weeks	1	2	3	4	5
40	I will continue to use computer and company related ICTs on a daily basis and in future	1	2	3	4	5

**SECTION F: Performance of Business organisations.**

Please indicate the extent to which you agree or disagree with the following statements. Select the most appropriate: 1-Strongly Disagree (SD) 2-Disagree (D) 3- Not Sure (NS) 4-Agree (A) 5-Strongly Agree (SA)

<b>G:</b>	<b>Items</b>					
	<b>Customer Loyalty</b>	<b>SD</b>	<b>D</b>	<b>NS</b>	<b>A</b>	<b>SA</b>
41	Customers are loyal to Movit because it is difficult to change beauty products	1	2	3	4	5
42	Movit has excellent relationship with customers	1	2	3	4	5
43	Movit is responsive to customers' changing needs	1	2	3	4	5
44	Movit is efficient in handling complaints	1	2	3	4	5
45	Movit offers customers rewards and benefits	1	2	3	4	5
	<b>Customer Retention</b>	<b>SD</b>	<b>D</b>	<b>NS</b>	<b>A</b>	<b>SA</b>
46	Movit is able to provide goods and services customers need	1	2	3	4	5
47	Customers see little advantage in switching to other beauty products	1	2	3	4	5
48	Movit has good relationships with customers	1	2	3	4	5
49	Movit offers a wide variety of products	1	2	3	4	5
50	Customers receive incentives from Movit	1	2	3	4	5
	<b>Customer Attrition rates</b>	<b>SD</b>	<b>D</b>	<b>NS</b>	<b>A</b>	<b>SA</b>
51	Customers value Movit because it has efficient service	1	2	3	4	5
52	Movit staff listen and are sensitive to customers needs	1	2	3	4	5
53	There is convenient accessibility to Movit products	1	2	3	4	5
54	Customers value Movit because of its flexible company policy	1	2	3	4	5
	<b>Customer Satisfaction</b>	<b>SD</b>	<b>D</b>	<b>NS</b>	<b>A</b>	<b>SA</b>
55	Customers chose our products because they think Movit is able to meet consumers expectations	1	2	3	4	5
56	Customers are given what they want at Movit	1	2	3	4	5
57	Movit tries to satisfy the customer wants	1	2	3	4	5
58	Customers of Movit like the quality of Movit Products	1	2	3	4	5
59	Customers derive satisfaction from Movit products.	1	2	3	4	5

**Your participation is highly appreciated**

## Appendix II: A Questionnaire for the key customers of Movit Products Limited

Dear respondent,

I am Sylvester Muhereza a participant at Uganda Management Institute pursuing a Master’s Degree in Business Administration. I am carrying out a research on ICT Systems and performance of business organisations taking a case analysis of Movit Products Uganda Limited. Therefore I am requesting you to fill this questionnaire as honestly as possible so that I am able to produce tangible and quality work that can be used in understanding ICT systems and performance of business organisations. This study is purely academic and the information given herein will remain confidential, and will not serve any other purpose. Further, no financial incentives shall be advanced to any of the participants in form of pay or allowance for participating in this study, and you are kindly requested to participate in the study.

### Background Information

Please tick in the column below the specified variable.

Age	20-29 yrs	30-39 yrs	40-49 yrs	Above 50 yrs		
	1	2	3	4		
Sex	Male	Female				
	1	2				
Marital Status	Married	Single	Widowed	Divorced		
	1	2	3	4		
Highest Level of Education	Certificate	Diploma	Bachelors Degree	Masters Degree	PhD	Others Specify
	1	2	3	4		5

### SECTION F: Performance of business organisations

Please indicate the extent to which you agree or disagree with the following statements. Select the most appropriate: 1-Strongly Disagree (SD) 2-Disagree (D) 3- Not Sure (NS) 4-Agree (A) 5-Strongly Agree (SA)

G:	Items	SD	D	NS	A	SA
	<b>Customer Loyalty</b>					
41	Customers are loyal to Movit because it is difficult to change beauty products	1	2	3	4	5
42	Movit has excellent relationship with customers	1	2	3	4	5
43	Movit is responsive to customers’ changing needs	1	2	3	4	5
44	Movit is efficient in handling complaints	1	2	3	4	5
45	Movit offers customers rewards and benefits	1	2	3	4	5
	<b>Customer Retention</b>					
46	Movit is able to provide goods and services customers need	1	2	3	4	5
47	Customers see little advantage in switching to other beauty products	1	2	3	4	5
48	Movit has good relationships with customers	1	2	3	4	5
49	Movit offers a wide variety of products	1	2	3	4	5
50	Customers receive incentives from Movit	1	2	3	4	5
	<b>Customer Attrition rates</b>					
51	Customers value Movit because it has efficient service	1	2	3	4	5
52	Movit staff listen and are sensitive to customers needs	1	2	3	4	5
53	There is convenient accessibility to Movit products	1	2	3	4	5

54	Customers value Movit because of its flexible company policy	1	2	3	4	5
	<b>Customer Satisfaction</b>	<b>SD</b>	<b>D</b>	<b>NS</b>	<b>A</b>	<b>SA</b>
55	Customers choose our products because they think Movit is able to meet consumers' expectations	1	2	3	4	5
56	Customers are given what they want at Movit	1	2	3	4	5
57	Movit tries to satisfy the customer wants	1	2	3	4	5
58	Customers of Movit like the quality of Movit Products	1	2	3	4	5
59	Customers derive satisfaction from Movit products.	1	2	3	4	5

**Your participation is highly appreciated**



### **Appendix III: Interview Guide for Top Management Staff**

1. What systems have been computerized at Movit and why?
2. Has Movit been successful at system computerization?
3. Has customer satisfaction improved with the automation of systems at Movit?
4. In your view, has system facilitating conditions contributed to customer satisfaction at Movit?
5. Would you agree that system social influence has had a positive influence on customer satisfaction at Movit?
6. Has system effort expectancy helped improve customer satisfaction at Movit?
7. Has system performance expectancy promoted customer satisfaction at Movit?
8. What are some of the challenges affecting customer satisfaction at Movit?
9. If not, what are the challenges faced by management during system computerization?
10. What strategies have been put in place to improve customer satisfaction at Movit?

**Appendix IV: Table For Determining Sample Size From A Given Population**

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size  
 "S" is sample size.

Krejcie, Robert V., Morgan, Daryle W., "Determining Sample Size for Research Activities", Educational and Psychological Measurement, 1970.