

**AN EVALUATION ON THE EFFECT OF INFORMATION
COMMUNICATION TECHNOLOGY ON JOB CHARACTERISTICS
IN KENYAN BANKS: CASE OF BANKS IN NAKURU TOWN**



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DECLARATION

This is my original work and it has not been submitted in any University.

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RECOMMENDATION

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DEDICATION

This project is dedicated to my dear husband Samson and our great daughters Wendy and Victoria. You made it possible for me.

ABSTRACT

Banking industry is important for economic growth and development. Following the trend of their western counterparts, banks in Kenya had implemented ICTs to support service processes. This study extended previous research findings by evaluating the effect of the ICTs on job characteristics of employees as characterized in the banking sector, case of banks operating in Nakuru town. The focus of the study was on the effects of ICTs on the five job design characteristics namely; skill variety, task identity, task significance, autonomy and feedback, in the job characteristics model (JCM). The study established the various ICTs used in Nakuru banks and the effect of these ICTs on employee's job characteristics. A sample of 70 employees from a population of 460 employees in 24 banks operating in Nakuru was used in the study. The study used descriptive survey research design. Data collection was undertaken by use of questionnaires, edited and processed using Statistical Package for Social Sciences for windows version 20.0. Descriptive statistics was presented in Tables and Charts. Pearson's coefficient of correlation (r) was used to assess the effect of the ICTs on job characteristics. A within subject comparison using ANOVA followed by a Levene's test was conducted to test the mean differences of job characteristics within the employees who reported use of ICTs and those who did not. The results indicated that the use of ICT had significant positive influence on the job characteristics. Particularly; employees reported a significant positive increase in skill variety ($F=1.52$, $P=0.002$), task identity ($F=1.452$, $P=.000$), task significance ($F=3.964$, $P=.003$) and feedback ($F=11.575$, 0.003 , $P=0.000$, 0.011) with branch networking and EFTPoS respectively. Despite marked increase in skill variety, task identity, task significance and feedback, employees reported a small increase in autonomy, with a mean less than 3 which was not statistically significant. The researcher further recommended that for successful implementation of ICTs in automation of services in an organization, the management should ensure that the contextual barriers such as lack of knowledge, lack of on-site support to help employees solve system related problems, delays in their work process and incompatibility with the precursor barriers are well addressed.

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LIST OF ABBREVIATIONS

EFTPoS:	Electronic Funds Transfer and Point of Sale
IT:	Information Technology
ICT:	Information and Communication Technology
PWC:	Price water House Coopers
OCC:	Office of the Comptroller of the Currency
JCM:	Job Characteristics Model
CRM:	Customer Relationship Management
WAN:	Wide Area Network
EN:	Enterprise Network
STS:	Social Technical System
CBK:	Central Bank of Kenya
UNCTAD:	United Nations Conference on Trade and Development
MICR:	Magnetic Ink Character Recognition
SPSS:	Statistical Package for Social Sciences
ANOVA:	Analysis of Variance

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Over the past few decades dramatic changes in work contexts have occurred in the economy. These changes include a shift from a manufacturing to a service –oriented economy, an increase in the scope and importance of the knowledge –based industry, and the knowledge workers who are exposed to challenging cognitive demands; an increase in emotional and interpersonal tasks in service work; an increase in the task independence and the use of teams. Significant growth in global operations across different countries, societies and cultures and the growing use of continued breakthrough technology and flexible work methods ranging from virtual teams to telework as a basis for operations. All these changes are associated with increased unpredictability and uncertainty. At the same time; the nature of workforce itself is changing considerably, with more women involved, greater ethnic diversity, more educated employees and altered psychological contracts between employer and employees. These changes give rise to new questions about the nature, effects on design of jobs and principles of a sociotechnical workplace that greatly emphasize on the role of technology in a business' success. By designing work positions around certain technologies, it is possible to optimize their use. This optimization does not simply involve placing the most qualified people in place to use the technology, but in centering their social arrangements on the technology.

Hackman and Oldham (1975) in their study stated that Job design is a branch of business science that attempts to understand the factors that go into creating a job position and how they might be optimized. Achieving the right kind of fit for the right kind of worker is a vital concern in today's business world, where specialization is more common. In many cases jobs may be designed in such a way that they complement the skill sets of a certain type of optimal worker.

Organizations can encourage positive employee attitude and enhanced quality of work by enriching a job along five job design characteristics; skill variety, task identity, task significance, task autonomy and feedback. Skill variety is the degree to which a job requires a variety of

challenging skills and abilities, task identity is the degree to which a job requires completion of a whole and identifiable piece of work, task significance is the degree to which a job has a perceived freedom and independent in scheduling work and determining how the work will be carried out; and feedback is the degree to which a worker gets information about the of his or her efforts either direct from the work itself or from others.

Hackman and Oldham (1980) in their study argued that these core job characteristics influence three critical psychological states; experienced meaningfulness of work, experienced responsibilities for work outcomes, and knowledge of the results that in turn, influence affective personal work outcome; high internal work motivation, high growth job satisfaction, high general job satisfaction, high work effectiveness and low absenteeism rates. A large body of research provides evidence that the way jobs are designed impacts outcomes that are important to workers (job satisfaction) and to employers (productivity). Job design can be approached with one or more goals in mind. For instance, jobs can be designed in the interest of increasing production efficiency, minimizing physical strain, or with an eye on maximizing the extent to which they are motivating to the worker (Campion and Thayer, 1985).

Joseph & Stone, (2003) in their study stated that the history of technology is history of invention of tools and techniques. The 19th century witnessed developments in communication technology originating in Europe. Due to the scientific gains directly tied to military research and development in 20th century information technology developed rapidly. Despite the fact that the 21st Century has just started, technology is being developed even more rapidly, marked progress in almost all fields of Science and Technology has led to massive improvement to the technology used currently. IT also known as ICT is a term that describes the combination of computer technology which is hardware and a software telecommunication technology such as data, image and voice networks.

Kenston and Kumar, (2004) in their study asserted that massive and rapid technological innovation are replacing the traditional branch teller with greater competition brought by deregulation, globalization and widespread mergers and acquisition taking place in the banking facilities like the ATM as part of a larger rationalization exercise; 'Even with the massive

branch network, the use of phone banking and internet banking is strongly promoted by the banks in addition to ATMs.'

Kenston and Kumar, (2004) in their study noted that in today's banking environment, information technology, effective service delivery and customer satisfaction are an indispensable competitive strategy. Furthermore, the stiff competition and the compression of the interest rates, has forced banks to set up and put into effect all necessary decision support technological systems.

The development in ICT is radically changing the way business is done. Electronic commerce is now thought to hold the promise of new commercial revolution by offering an inexpensive and direct way to exchange information and sell or buy products and services. This revolution in the market place has set in motion a revolution in the banking sector for the provision of a payment system that is compatible with the demands of the electronic market place (Abor, 2005). Researches have been done in areas of service excellence and customer satisfaction in the banking industry but little has been done on the impact of technological innovation in Commercial banks in Kenya with reference to employees job characteristics and outcome, and therefore this study seeks to evaluate the effect of technological innovation on employees' jobs characteristics and job outcome in commercial banks in Kenya.

1.1.1 Banking Industry in Kenya

Okatch, (2009) in his study asserted that Kenya's banking sector is a cut-throat business arena, with 44 players by August 2012, including Multinationals all scrambling for a slice of the pie. Out of the 44, one is a mortgage financial institution; Housing Finance Ltd and 43 are bank financial institutions. Out of the 43, 23 are locally owned, 5 are foreign owned, 9 are foreign partly owned locally and 6 banks have significant government participation.

The banking industry in Kenya is governed by the companies Act, the Banking Act, the Central Bank of Kenya Act and the various prudential guidelines issued by the Central Bank of Kenya. The banking sector was liberalized in 1995 and exchange controls lifted (Felix Okatch, 2009). Banking can be traced back to the year 1694 with the establishment of the bank of England. The

bank was started by a few individuals who were actually money lenders with an aim of lending money at an interest. The banking industry in Kenya started in 1896 with the National Bank of India opening its first branch. Standard Chartered Bank opened its first branches in Mombasa and Nairobi in January 1911. The Kenya Commercial Bank was established in 1958 with Grindlays Bank of Britain merging with the National Bank of India. The Cooperative Bank of Kenya was established in 1965 for the express purpose of providing financial services to Cooperative societies. Three years later, National Bank of Kenya (NBK) was incorporated (Ojung'a, 2005). Over the last few years, the banking Sector in Kenya has continued to grow in assets, deposits, profitability and product offering. This growth has been mainly due to automation of a large number of service and a move towards emphasis on the complex customer needs rather than traditional off-the-shelf banking products (PWC, 2012).

1.2 Statement of the problem

Technology has really revolutionized the banking system in Kenya. Such is the pace of technology advancement that self-service banking is a reality. Increasingly, banks are operating in an intensely competitive financial market with Millions of shillings being spent annually on ICT implementation in Kenya. Such ICT implementations play an important role in fostering socioeconomic development. In particular, ICTs have been a key building block in bringing better quality of life, education, health care and government. There is a rich body of literature that has investigated the impact of ICTs on the performance of organizations in general and service organizations in particular. Notwithstanding the vast body of research in these areas, there was need of research on the impact of ICTs on employees' jobs in developing countries, particularly in the service sector. Developing countries have unique socioeconomic, cultural and regulatory conditions yet they are implementing complex, enterprise-level ICTs, in response to highly competitive and dynamic business environments. It is not clear how these technologies developed primarily to support the service processes of organizations in developed countries, affect employees' jobs in developing countries, particularly Africa. Therefore from this perspective, there is need to understand the impact of ICTs on employees' jobs in banks, particularly in Kenya from an operations management perspective. This study therefore seeks to evaluate the effect of technological innovation on employees' jobs characteristics as characterized in commercial banks in Kenya.

1.3 Objectives of the study

The general objective was to evaluate the effect of ICT on the job characteristics in Kenyan banks:

The specific objectives were:

- (i) To characterize the ICT used by banks in Nakuru town.
- (ii) To determine the effect of ICT on job characteristics of employees in banks in Nakuru to town.

1.4 Research Hypothesis

H₀₁: ICT use in Nakuru banks is low

H₀₂: ICTs used have no significant effect on employee job characteristics in commercial banks within Nakuru town.

1.5 Justification of the Study

There are many benefits of ICT in banking, which include; easy access to money, banks can handle more customers, less staff employed by banks, payment by credit/debit cards so no need to carry money around. The findings of the study would particularly be useful to the Government of Kenya in policy formulation in its endeavor to providing quality banking services through enhancement and empowerment of bank workers in their job characteristics. It could also assist key decision makers and facilitators to match their plans with environmental changes. To bank managers the study would provide insight on how managers can meet needs of today's workers who desire the workplace to be exciting and full of fun. Bank management could adopt the recommendations to develop practices that meet both the needs of employees and those of the organization. This study provides knowledge which would enhance teaching and future research in the area of job design and ICT use.

1.6 Scope and Limitations of the Study

This study was limited to effect of ICT on only five job characteristics namely; skill variety, task identity, task significance, autonomy and feedback. The study determined the various ICTs used in Nakuru banks, the effect of these on job characteristics; carried out within Nakuru town and the target sample was the employees of banks operating in Nakuru town. The study was operating under the assumption that the target group provided all the required information concerning the study objectives. However, this study may have been hindered by the difficulty in obtaining information from the staff since they were bound by the policy of secrecy. Due to the secrecy policy affecting accessibility of bank staff, the respondents were assured of confidentiality of any information they gave.

1.7 Assumptions of the study

- (a). The respondents gave honest responses to questions to enable the researcher make a reliable and concrete conclusion.
- (b). The information obtained from the respondents was representative of the entire study population enabling generalization of the findings.

1.8 Definition of Terms

Job:	An employee's specific work and task activities in the bank
Job characteristics:	Skill variety, Task identity, Task significance, Autonomy and Feedback
Employees:	Staff working in the banks based in Nakuru-Kenya.
Motivation:	The inner force that drives individual to accomplish personal and organizational goal
Effectiveness:	Capable of producing intended results.
Performance:	How well an employee does his/her task duties and responsibilities.
ICT	Communication Technology that deals with the physical devices and software that link various computer hardware components and transfer data from one physical location to another
Skill Variety:	The degree, to which a job requires a variety of challenging skills and abilities.

- Task Identity:** The degree to which a job requires completion of a whole and identifiable piece of work
- Task significance:** This is the degree to which the job has a substantial impact on the lives of other people, whether those people are in the immediate organization or in the external environment.
- Autonomy:** The degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in doing the work
- Feedback:** The degree to which a worker gets information about the effectiveness of his or her efforts either direct from the work itself or from others

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter presents the literature review which was used to contextualize and illuminate this study. The chapter specifically reviewed literature on information and IT innovation in banking sector, job characteristics, effects of ICT on job characteristics, factors affecting ICT use and finally the conceptual framework of the study.

2.2 ICT Tools used in Banks

According to Laudon and Laudon (2001), Communication Technology deals with the physical devices and software that link various computer hardware components and transfer data from one physical location to another. ICT products in use in the banking industry include Automated Teller Machine, Smart Cards, Telephone Banking, MICR, Electronic Funds Transfer, Electronic Data Interchange, Electronic Home and Office Banking. Innovation in information processing, telecommunications and related technologies known collectively as “information technology” (IT).

Coombs et al, (1987) defined IT as the modern handling of information by electronic means, which involves its access, storage, processing, transportation or transfer and delivery. According to Agboola, (2007), IT affects financial institutions by easing enquiry, saving time and improving service delivery. In recent decades, investment in IT by banks has served to streamline operations, improve competitiveness and increase the variety and quality of service provided.

Fisher, (1998) argued that technology when applied in today’s banking environment falls into three specific categories; Firstly, Customer independent (a technology that involves a customer conducting and completing a transaction with a bank entirely independent of any human contact with the institution, for example ATMs, phone banking and internet banking) Secondly, customer assisted (a bank employee will use customer – assisted technology as a resource to

complete a transaction for example call centers customer service officers will use a CRM system to understand a customer's profile and provide instant responses to customers queries on the banking transactions and up-to-date billings) and Last; customer transparent; customer technology which represents the real core of bank operations and customers never see it but expect it.

2.2.1 Automated Teller Machines (ATMs)

According to McGill (2004), an automated teller machine (ATM) is a computerized telecommunications device that provides the customer of a financial institution with access to financial transactions in a public space without the need for a human clerk or bank teller. ATMs are known by various casual terms including automated banking machines, money machines, bank machines, cash machines, hole-in –the –wall and cash point.

Lockett and Littler, (1997) in their study stated that ATMs typically connect directly to their ATM controller via either a dial-up modem over a telephone line or directly via a leased line. Blake (2000), in her study asserted that, on most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smartcard with a chip which contains a unique card number and some security information such as a expiration date. Security is provided by the customer entering a personal identification number (PIN).

ATMs are placed not only near or inside the banks premises, but also in locations such as shopping centre, malls, airports, grocery stores, petrol stations, restaurants or any place where large numbers of people may gather as observed by Daries (1990). Moutinho and Curry, (1996) in their study stated that ATMs are the most frequently used electronic distribution channel that allows bank clients to perform their main banking transactions such as access their bank accounts in order to make cash deposits and withdrawals 24 hours a day. Most ATMs are connected to interbank networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their account or in the country where their accounts are held thus enabling cash withdrawal in local currency (Maxwell, 1990). In some cases, fees are charged solely to users who are not customers of the bank where the ATM is installed, in other cases they apply to all users (Lustsik, 2003).

ATMs were introduced first to function as cash dispensing machines. However due to advancements in technology, ATMs are able to provide a wide range of services, such as making deposits, funds transfer between two or more accounts and bill payment (Rose,1999).

2.2.2 Telephone Banking

According to Cronin, (1997) telephone banking is a service provided by a financial institution which allows its customers to perform by telephone. Mostly telephone banking uses an automated phone answering system with phone keypads response or voice recognition capacity. To guarantee security, the customers must first authenticate through numeric or verbal password or through security questions asked by a live representative located in a call centre or a branch, although this feature is not guaranteed to be 24/7. Wisley, (1997) points out that, telephone banking representatives are usually trained to do what was traditionally available only at the bank such as loan application, investment purchases and redemptions, cheque book orders, debit card replacement and change of address. Telephone banking provides services such as account balance and list of latest transactions transfer of funds between a customer's accounts, electronic for instructions to issue bank cheques (Daries, Moutinho and Curry 1976).

2.2.3 Personal Computer Banking

Personal Computer Banking is a service which allows the bank's customers to access information about their accounts via a proprietary network, usually with the help of proprietary software installed on their personal computer. Once access is gained, the customer can perform a lot of importance of computer literacy has resulted in increasing the use of personal computers (Abor, 2005).

2.2.4 Internet Banking

The idea of internet banking according to Essinger (1999) is "to give customers access to their bank accounts via a web site and to enable them to enact certain transactions on their account, given compliance with stringent security checks". Internet Banking Handbook (2001) describes Internet Banking as "the provision of traditional (banking) services over the internet.

2.2.5 Branch Networking

Networking of branches is the computerization and inter-connecting of geographically scattered stand-alone bank branches into one unified system in the form of a WAN or EN for the creating and sharing of consolidated customer information /records (Abor, 2005).

2.2.6 Electronic Funds Transfer and Point of Sale (EFTPoS)

An Electronic Funds Transfer at the point of sale is an on-line system that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases (at purchases points). A POS uses a debit card to activate an Electronic Fund Transfer process (Chorafas, 1988).

2.3 Job Characteristics

Richard Hackman et al, (1980) developed a job design characteristics approach to job enrichment. The model is based on the assumption that jobs can be designed not only to help workers get enjoyment from their jobs but also to help workers feel that they are doing meaningful and valuable work. Specifically, the model identifies five core job characteristics that help create three critical psychological states, leading, in turn, to several personal and work outcomes. The job characteristic model is based on the idea that the task itself is key to employee motivation. Specifically, a boring and monotonous job stifles motivation to perform well, whereas a challenging job enhances motivation, variety, autonomy and decision authority are three ways of adding challenge to a job.

There are five core job characteristics namely; skill variety, task identity, task significance, autonomy and feedback, which impact three critical psychological states:-experienced meaningfulness, experienced responsibility for outcomes and knowledge of the actual results. In turn influencing work outcomes (job satisfaction, absenteeism and work motivation). Work must possess some inherent purpose or provide value to its incumbent; a salary or reward, a feeling of achievement or prestige, or perhaps something more meaningful. In recent years, more people are choosing to search for meaning at work than in any other domain of life (Holbeche and

Springett, 2004). Considering most adults spend nearly half of their waking lives at work, this is not surprising (Wrzesniewski, 2003)

Bessette, (2003) and Treadgold, (1999) in their study argued that individuals derived value from their work through spirituality or an inner guidance, while Kristensen and associates' (2005) conceptualization of meaningful work indicated that value stemmed primarily from characteristics of the job and how one's work is organized. Bakker and Demerouti, (2007) concluded that when employees lack autonomy, they may not be equipped to meet the demands that are placed upon them. Furthermore, depending on an individual's work goals, autonomy may be a necessary resource to achieve these goals. Skill variety, task identity and task significance are all job characteristics that stimulate personal growth and development and can help employees achieve their work goals. When employees are given the opportunity to maximize the use of their talent and ability for pursuing a clearly identifiable and worthy outcome or goal, they are more likely to consider their job as one that helps them meet their own personal goals and aspirations. If the aforementioned job characteristics are considered to be job resources, their presence should reduce burnout (Hackman, et al., 1975).

2.3.1 Skill variety

This is the degree to which a job requires a variety of different activities and involves the use of a number of different skills and talents of the employee. Using only one skill to do the same task repeatedly can be quite boring causing the employees productivity to decrease. Jobs that are high in skill variety are seen by employees, as more challenging because of the range of skills involved, relieve monotony that results from repetitive activity, and gives employees a greater sense of competence.

Variety of skills alleviate boredom and foster greater meaning in work by allowing one to express more aspects of his/her personality in her /his work. Skill variety allows the employee to structure the tasks according to his/her own optimal work patterns and provide an opportunity to take on skills to greater complexity in their current roles.

2.3.2 Task identity

This is the degree to which a job requires completion of a “whole” and identifiable piece of work, doing a job from beginning to end and with a visible outcome. Does not include just doing a portion of a job. When employees work on a small part of the whole, they are able to identify any finished product with their effort. Having the opportunity to see a tangible result from one’s work can serve as a means of professional self assessment. One is able to see that each step of the task was completed and nothing was left or skipped over. Thus creating a sense of completion or responsibility for the whole product.

Also involves broadening of tasks to produce a whole product or an identifiable part of it. They cannot feel any sense of completion or responsibility for the whole product. However, when tasks are broadened to produce a whole product or an identifiable part of it, then task identity has been established. For example, dress designers will have high task identity if they do everything related to making the whole dress; measuring the client, selecting the fabric, cutting and sewing the dress, and altering it to fit the customer, (Hackman et al, 1975).

2.3.3 Task significance

This is the degree to which the job has a substantial impact on the lives of other people, whether those people are in the immediate organization or in the external environment, (Hackman et al, 1975). Involves highlighting the contribution of employees’ efforts to the welfare of others. Makes employees to believe they are doing something important to the organization or society or both or even the work of others. Employees experience their work as more purposeful and valuable, thus motivating them to invest additional time and energy in completing their assigned tasks.

Even more modest contributions to an organization can be recognized as being important to the extent that employees understand the role of their jobs to the overall mission of the company. The point is that employees should believe they are doing something important in their organization or society, or both.

2.3.4 Autonomy

Autonomy is the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in doing the work. It is considered fundamental in building a sense of responsibility in employees.

Although most employees are willing to work within the broad constraints of an organization, employees want a certain degree of freedom. Autonomy has become very important to people in the workplace. For example, a salesperson is considered to be highly autonomous by scheduling his or her own work day and deciding on the most effective approach to use for each customer without supervision. High motivation is related to experiencing three psychological states whilst working (Hackman et al, 1975).

2.3.5 Feedback

The degree to which carrying out the work activities required by the job provides the individual with direction and clear information about the effectiveness of his/her performance. It can be positive or negative. Feedback should occur frequently rather than to be delayed until the annual evaluation meeting.

It provides the workers knowledge on how successful their work has been intern enabling them to learn from mistakes. Connect workers with their work emotionally. Helps a person to improve himself to learn new skills to rectify his mistakes so it is not repeated in the future, provides solution to the problem and builds relationships between managers and employees. Feedback may come from the job itself, from customers, supervisors or coworkers.

2.3.6 Meaningfulness of work

That labour has meaning to the worker, something that the worker can relate to, and does not occur just as a set of movement to be repeated. That work is motivating in itself as opposed to motivating only as a means to an end. Meaningful work occurs when there is a fit between an employee's personal values and work goals and burnout arises from a misfit between one's

intentions and the reality of the job (Schaufeli and Enzmann, 1998; Spreitzer, 1995). When the characteristics of an employee's job fit with their own values they are more inclined to consider their work to be meaningful. However, when there is a mismatch because of a lack of job resources (or an excess of demands), the lack of meaning is likely to be replaced by feelings of exhaustion, cynicism and reduced professional efficacy. A review of research on the JCM by Fried and Ferris (1987) reported that autonomy was significantly associated with meaningful work. In addition Morin, (2008) concluded that autonomy is a source of meaningful work and Isaksen, (2000) found that autonomy was one of several mechanisms through which individuals found meaning in their work. Consequently, it is expected that skill variety, task identity, task significance, and autonomy will be significantly related to meaningful work.

2.3.7 Responsibility

That the worker has been given the opportunity to be a success or failure at his or her job because sufficient freedom of action has been given. This would include the ability to make changes and incorporate the learning he or she has gained whilst doing the job. Responsibility is derived from autonomy, as in the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out. Morgeson and Humphrey (2006) pointed out that employees' experience and abilities to carry out their job are heavily influenced by their access to manager's support.

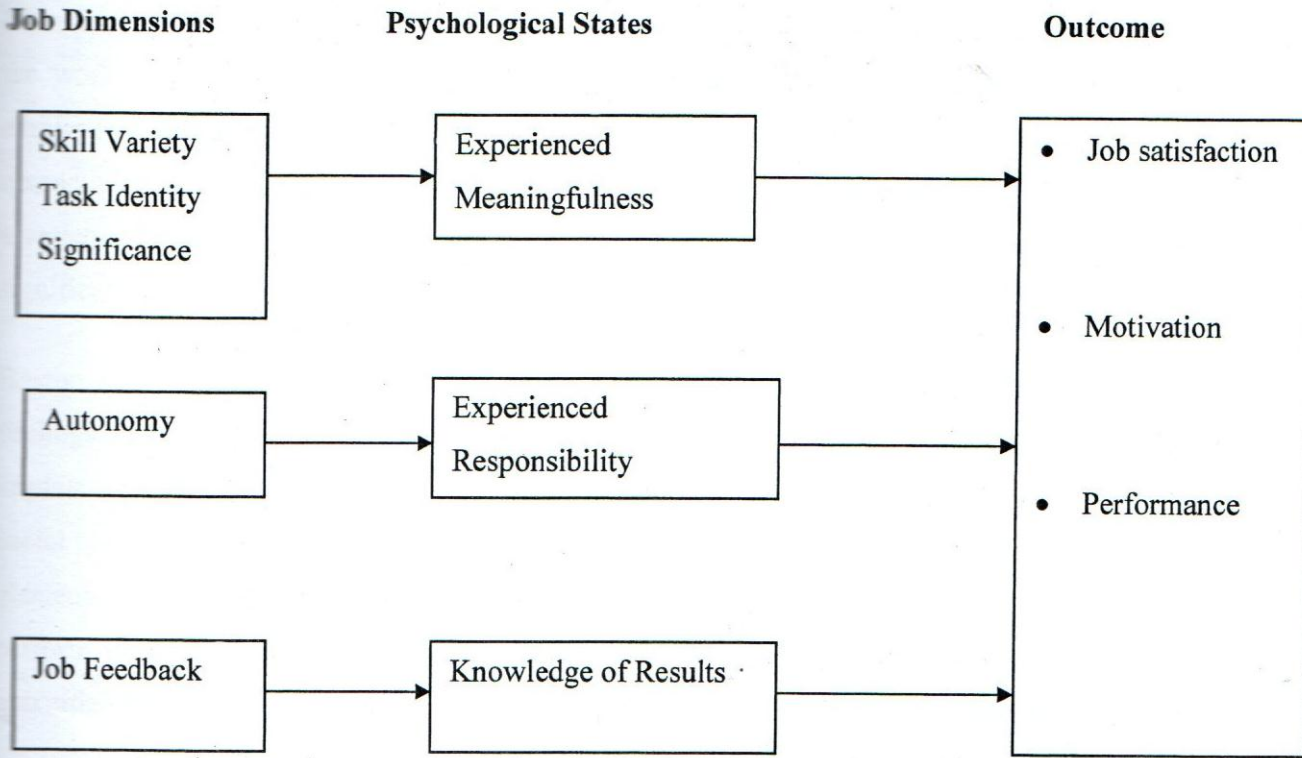
2.3.8 Knowledge of outcomes

This is important for two reasons; firstly, to provide the worker knowledge on how successful their work has been which in turn enables them to learn from mistakes. Secondly, is to connect them emotionally to the work. It implies an employee awareness of how effective he/she is converting his/her effort into performance and this comes from feedback. This can be anything from production figures through the customer satisfaction scores. The point is that the feedback offers information that once known, can be used to do things differently. (Hackman et al, 1975).

Feedback can come from other people or the job itself. This is derived from skill variety, task identity and task significance. Skill variety involves using an appropriate variety of your skills

and talents; too many might be overwhelming and too few, boring. Task identity is being able to identify with the work at hand as more whole and complete and hence enabling more pride to be taken in the outcome of that work. Task significance is being able to identify the task as contributing to something wider, to society or a group over and beyond the self. Adler (1991) found that systems in which employees reported higher perceptions of skill variety, task significance, autonomy and feedback reported higher levels of satisfaction and internal work satisfaction.

2.3.9 Job Characteristic Model



Adopted from Hackman and Oldham (1976)

Figure 1: Job Characteristic Model

2.4 Effects of ICT on Job Characteristics

Morris and Venkatesh (2010) in their study found that technologies can increase uncertainty in the work environment, particularly if a technology is radically different from those to which employees are accustomed. This in turn, can positively influence some aspects of job characteristics, for example skill variety and task significance as employees will need to develop a variety of skills for handling unpredictable job situations and may perceive their jobs as highly significant.

Boston and Heinen, (1977) developed a Social and Technical System theory in response to findings that organizations were not attaining expected benefits from new technology implementations. STS theory notes that organizations comprise of two sub-systems namely; a social system and a technical system. The social sub-system comprises the structural and human elements, while a technical sub-system includes the technical and tasks that individuals will perform using the ICT. Avgerou et al (2004) added that technical systems typically seek to maximize task accomplishments, while social systems focus on improving quality of work life.

While implementing technologies, the goal should be the joint optimization of the social and technical systems. The joint optimization or the fit between the social and technical systems can only be achieved when human needs are faithfully considered during the implementation of a technology. It is the fit between the two sub-systems that influence the success of an implementation fit occurs when a design process optimizes both sub-systems imbalance in the two systems leads to negative outcomes, such as reduced effectiveness.

Molleman and Broekhuis, (2001) stated that organizations and employees benefit the most when the social and technical sub-systems of an ICT are in balance with one another. Balance between these sub-systems involve recognizing that both sub-systems affect one another and by redressing imbalances when it occurs. As the economy continues to grow, banks continue to struggle to keep up with the substantially increased volume of transactions. This creates an imbalance between the sub-systems as the people have greater volume of tasks that they need to perform.

Morris and Venkatesh (2010) asserted that although in the absence of an ICT there is a great deal of interaction with managers (tellers at banks have to constantly interact with managers to get transactions approved) there is little or no systematic feedback to employees about their performance on an ongoing basis (error rate, transaction processing time, customer satisfaction). An ICT will allow the easy creation of reports that will provide greater feedback to tellers on their activities and performance (service time, number of customers served). Also specific customers' satisfaction ratings can be quickly and readily associated with a specific teller, thus providing feedback via error messages and chronographs, which detail how long a process is taking, and fast communication with management through electronic means when an employee either asks for it (in case of a question or problem) or needs it (in the case of outstanding or substandard performance). Therefore, an ICT can provide the means through which balance is restored and bank employees are helped in dealing with the substantial increase in volume of activities.

2.5 Factors Affecting ICT Use

According to Hofstede (2003) conservative beliefs and norms lead to change being viewed unfavorably in India. ICT seen not as a means for the organization to innovate and be competitive but as a wasteful exercise trying to be like Western Organizations. The unwillingness to change on the part of the employees, a derivative of conservative social norms that are typical of traditional banks and its employees, intensified due to other problems such as environmental barriers and learning difficulty.

Gupta (2005) asserted that the implementation of a new enterprise wide ICT is not only a change but also one that offers the possibility of streamlining, business processes that could lead to employee layoffs. Employees worry about being able to use the new ICT well enough to keep their jobs or be able to be promoted in the future.

Lazarus and Foltman (1984) found that environmental barriers and learning difficulty represent factors that suggest whether employees feel they have enough control over the work conditions enabled by the new ICT. Environmental barriers are barriers external to employees, largely beyond an individual's control that creates a first-degree barrier to successful use of the new ICT

to accomplish tasks. The environmental barriers not only hinder employees doing their jobs, but also a source of frustration for them. Learning difficulty relates to an employee's ability to understand and perform their jobs with the ICT. It comprises two sub-categories namely; facilitating conditions (on-site support, training) and individual competency (employee's computer self-efficacy, computer literacy).

According to Gupta (2005) employee valuation is categorized as incentive alignment and future ambiguity. The implementation of a new enterprise-wide ICT is not only a change, but also one that offers the possibility of streamlining business processes that could lead to employee layoffs. Employees worry about being able to use the new ICT well enough to keep their jobs or being able to be promoted in the future.

Hays and Hill (2001) in their study asserted that if the employees are reluctant to use a new ICT and their job outcome are unfavorably affected by the new ICT, it is more likely that their overall service performance and organizational service quality will be affected. Ewan and Kraemer's (2000) suggested that deployment of ICT in developing countries must be preceded by investment in other resources (infrastructure, human capital).

2.6 Empirical Research

Ochieng (1998) in his study on an analysis of factors considered important in successful implementation of information systems in commercial banks in Kenya; case of commercial banks in Nairobi. Concluded that these factors included: Awareness of services and their benefits, perceived risk, quality of infrastructure, demographic characteristics and ICT personnel availability.

Tonui (2007) in his study on the relationship between job characteristics and employee motivation in Kenya: case of Kiptagich tea factory, concluded that there is a significant positive correlation between the nature of a job and the level of motivation. Through job design it should be possible to include in any job the desired characteristics and consequently raise the level of motivation.

Agboola (2007) did a study on: ICT in banking operations in Nigeria-an evaluation of recent experiences. The study was a comprehensive evaluation of the response of Nigerian banks on the adoption of ICT. The study revealed that the period between 1990 and 2005 was characterized by fundamental changes in the content and quality of banking business in the country. The adoption of ICT in banking has improves customer services, facilitates accurate records, provides home and office banking services, facilitated ensures convenient business hour, prompt and fair attention and enhances faster services. The adoption of ICT improves the bank's image and leads to a wider; faster and more efficient market. It also makes work easier and more interesting, improves the competitive edge of banks, improves relationship with customers and assists in solving basic operational and planning problems.

The effect of organizational innovation and information technology on firm performance, by Surendra, G. and Wulong, G. (2004) .This study examined the issue of whether investment in ICT, combined with organizational changes and worker skills contribute to better performance in Canadian firms. They found that while ICT is productive on its own, it is more productive in firms that combine high levels of ICT with high levels of organizational change. Firms that combine ICT with organizational changes have a high incidence of innovation. Also they found out that ICT and human capital are complements in the service sectors. Firms that combine high levels of ICT and high levels of worker skills have better firm performance.

Canato, A. and Corrocher, N. (2004) did a study on 'ICT: organizational challenge for Italian banks.' They examined the impact of technological change on the organizational structure of Italian banks, in terms of the evolution of competence and development of new systems for the provision of financial services. They found out that the process of ICT adoption in the Italian banking industry has been slow when compared to other European countries. This slowness is mainly due to both the late process of liberalization, after 1994, and lack of managerial culture. Also, the existence of a large population of small co-operative banks lacking the resources to compete on the same basis as large ones, hindering the implementation of innovative technological systems.

Kahya (2007) did a study on 'the effect of job characteristics and conditions on job performance.' The results showed that there was a substantial relationship between employee performance with both job characteristics and environmental conditions. He concluded that poor workplace conditions and hazards result in decreasing employee performance consisting of worker's ability to solve problems, co-operation with coworkers and creativity.

2.7 Conceptual Framework

As shown in Figure 2 below: the conceptual framework for this study recognized the close relationship between used ICTs and job characteristics and job outcome in any organization. According to this framework, job characteristics and job outcome in an organization are dependent on ICTs subject to the intervening variables.

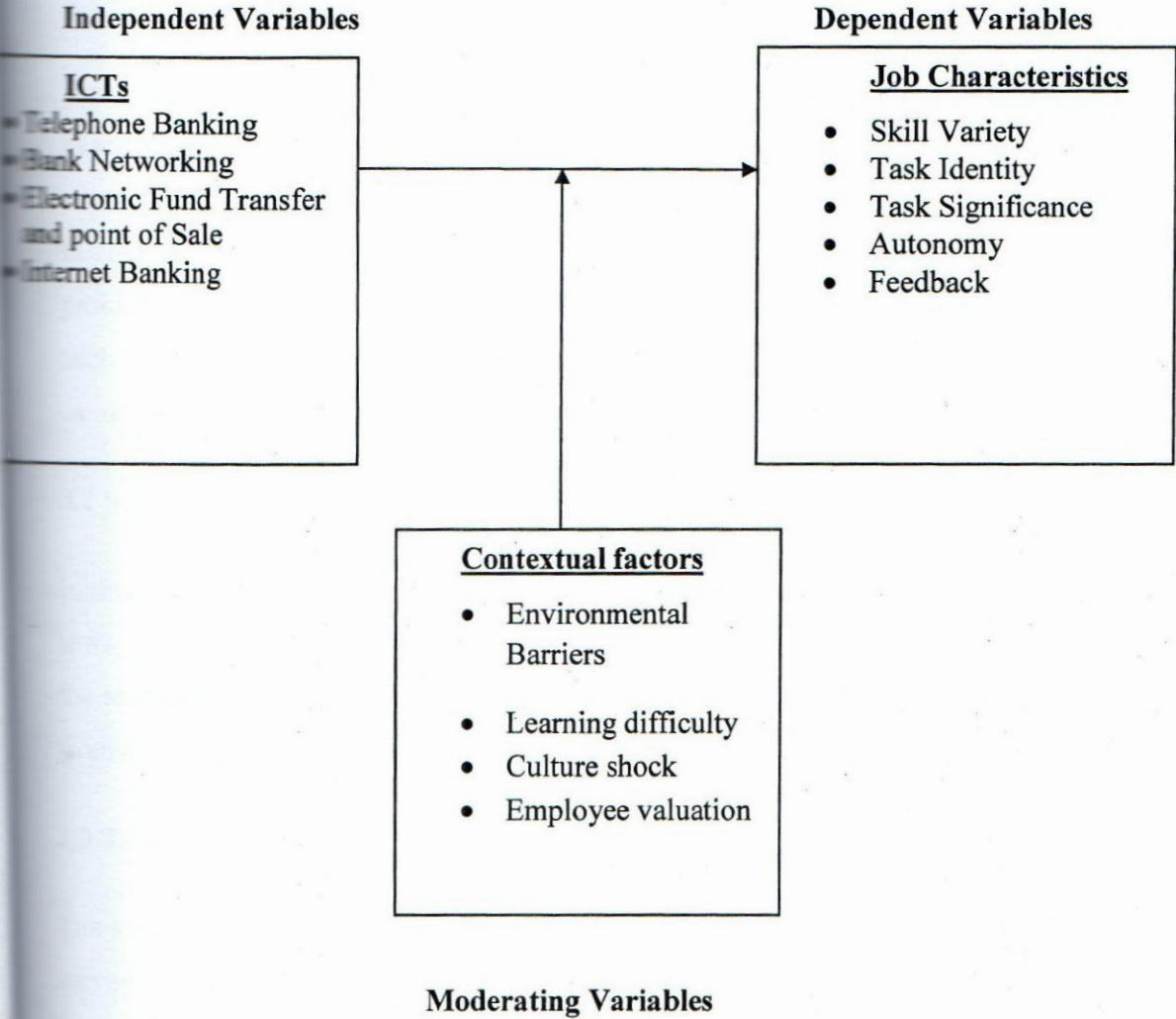


Figure 2: Conceptual framework

Source: Researcher (2013)

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter presents the research design which was used in the study, target population, the sample size, data collection method and analysis methods.

3.1 Research Design.

The study used descriptive survey research design. The major purpose of descriptive research is description of the state of affairs as it exists and then reporting the findings. Kerlinger, (1995) points out that descriptive studies are not only restricted to fact-finding, but also may often result in the formulation of important principles of knowledge and solution to significant problems. This research also utilized an ex-post facto design because such independent variables such as employee's age, experience, qualifications; gender, and other business related factors cannot be manipulated.

3.2 Study Area.

In this study, the study area was Nakuru town which had twenty-four (24) banks operating in the town. This area had been selected because from the preliminary observation of the Researcher, the area had a good representation of most banks operating in Kenya and therefore the findings from the study were a reflection of Kenyan banks.

3.3 Target population

The study targeted 95 members of staff, but only 70 respondents accepted to participate in the survey. Some members of staff said they were not authorized by the bank to participate in any survey while others did not have time for the interview.

3.4 Sampling procedure

The respondents were chosen using simple random sampling. The study population was segmented into cadres. This involved stratifying the banks and employees into meaningful levels

and running disproportionate samples. Respondents from each stratum were selected randomly. The strata were based on the number of employees in each bank in Nakuru town; large banks having more than 25 employees, middle sized having 24-15 employees and the small having less than 15 employees. The employees were stratified into top level (administrative), middle level (supervisors/head of departments) and the lower level (non-management staff).

The sample size was obtained using Cochran's sample size formula, as explained below:

Cochran's (1977) formula uses two key factors: the error/risk the researcher is willing to accept (margin of error) and the level of acceptable risk the researcher is willing to accept that true margin of error exceeds the acceptable margin of error (Alpha level)

Where:

Alpha level is 0.05

Acceptable margin of error 0.03

t-value for alpha level of 0.05 is 1.96 for population size above 120

\underline{s} = Estimate of standard deviation in the population is 1.167 (Estimate of variance deviation for 7 point scale calculated by using 7 inclusive range of scale] divide by 6 [number of standard deviations that include almost all (approximately 98%) of the possible values in the range).

\underline{d} = Acceptable margin of error for mean being estimated as .21 (number of points on primary scale multiply by acceptable margin of error).

$$\underline{no} = \frac{(t)^2 * (\underline{s})^2}{(\underline{d})^2} = \frac{(1.96)^2 (1.167)^2}{(7 * 0.03)^2} = 118$$

However, since sample size (118) is more than 5% of the total employees of banks in Nakuru town, which are 23. Cochran's (1977) correctional formula was used to calculate the final sample size for the number of banks and employees.

$$\underline{n} = \frac{no}{1 + \frac{no}{pop}}$$

Where pop = population of employees of banks in Nakuru town (460).

\underline{no} = Required return sample size according to Cochran's formula =118.

\underline{n} = required return sample size because sample <5% of population (Cochran, 1977).

$$\underline{n} = \frac{118}{1 + \frac{118}{460}} = 93.91$$

The sample size required for bank employees is 93.91(rounded off to 95). From the target population of four hundred and sixty (460) employees, a sample size of 95 respondents will be randomly selected to participate in the study.

Table 3.1: Population distribution

Type of Bank	Population.	No. of Employees	Sample No.
Large	25 and above	176	5 banks x 6=30
Middle	24-15	191	8 banks x 4=32
Small	Below 15	93	11 banks x 3=33
Total		460	95

3.5 Research Instrument

The main instrument for data collection was a questionnaire (See appendix 5). The questionnaire was preferred in this study because those who took part in the study were literate and quite able to answer items asked adequately. The questionnaire was semi structured and had a multiple of choices for the respondents to choose from and the closed ended questions. The questioning was based on the theoretical framework developed from the literature. The questionnaire was administered by the researcher through drop and pick to the respondents at their respective places of work.

3.6 Ethical Issues

The researcher informed the respondents in each of the banks under study before conducting the study and assured them of utmost privacy and confidentiality. They were assured that any information gathered from their institutions was to be used solely for academic purpose and sources were to remain confidential. This ensured that the findings did not portray the respective banks in bad or good light without their consent.

3.7 Data analysis and presentation

The Statistical Package for Social Sciences computer programme (SPSS) for windows version 20.0 was used to analyze the primary data. Field data was first sorted out to ensure consistency, exhaustiveness and completeness in information expected. The items or variables in the questionnaires were then identified, coded and entered into the SPSS programme. Pearson's coefficient of correlation (r) was used to assess the effect of the ICTs on job characteristics and job outcome. A group means difference test was used to between-subjects comparisons between the employees who reported use of ICTs (branch networking, EFTPoS, internet banking and telephone banking) and those who did not. To test the mean differences of job characteristics and job outcome within the employees who reported use of ICTs and those who did not, a within subject comparison using ANOVA followed by a Levene's test was conducted.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

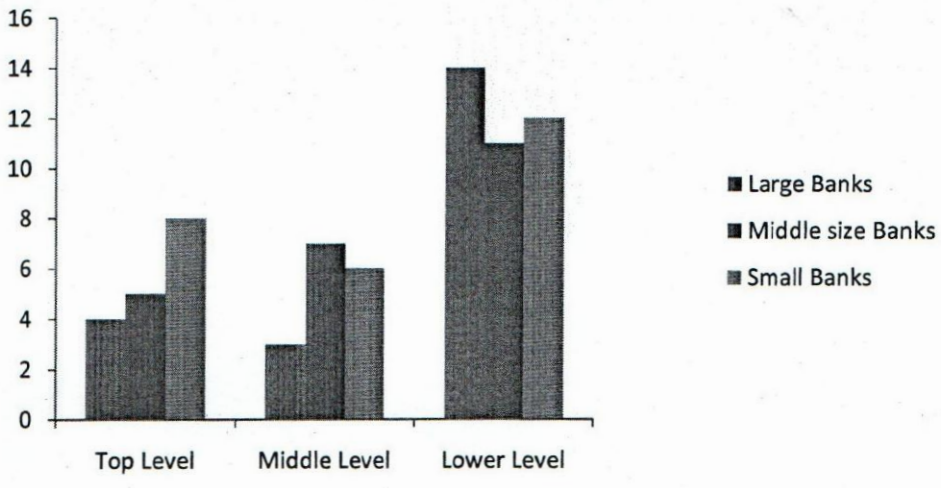
4.1 Introduction

This chapter presents the general findings from the study, hypothesis tests results, interpretations and discussions of the study. The data is summarized and presented in the form of means, figures and tables. The collected data has been analyzed and interpreted in line with the aims of the study namely: to establish the ICT used by banks in Nakuru town and determine the effect of the ICT on job characteristics of employees in banks in Nakuru town. Out of the 95 members of staff who were sampled, only 70 respondents accepted to participate in the survey, this gave a response rate of 74% of the targeted respondents. Some members of staff said they were not authorized by the bank to participate in any survey while others did not have time for the interview.

4.2 Demographic characteristics of the respondents

The study population was segmented into cadres. This involved stratifying the banks and employees into meaningful levels and running disproportionate samples. The strata were based on the number of employees in each bank in Nakuru town; large banks having more than 25 employees, middle sized having 24-15 employees and the small having less than 15 employees. The employees were stratified into top level (administrative), middle level (supervisors/head of departments) and the lower level (non-management staff). Majority of the respondents were from the lower level of management totaling to 55.7% drawn from small, middle sized and large banks in Nakuru town, with top level being 24.3% and the middle level being only 20% of the respondents as shown in fig 3.

Fig 3: Distribution of study population

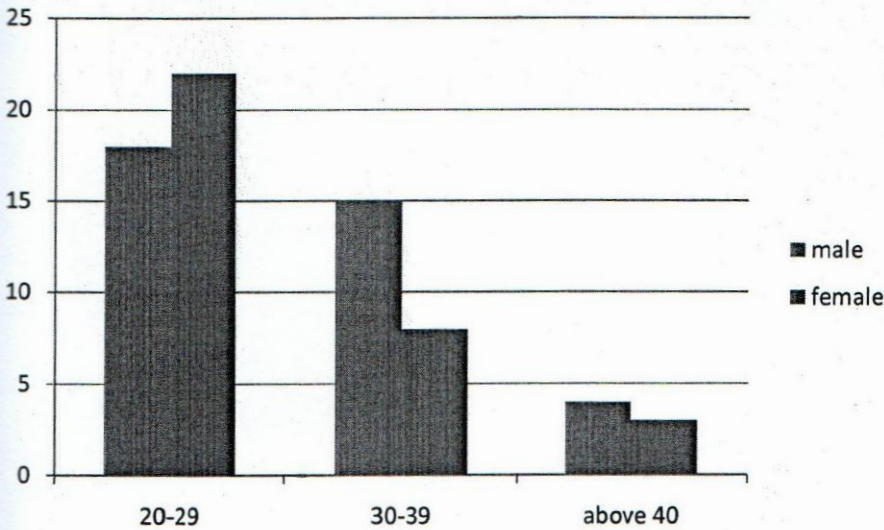


Source: Field Data (2013)

4.2.1 Gender and age of the respondents

Out of the respondents interviewed, 52.9% were male while 47.1 % were female. Majority (57.1%) of the respondents were of the age between 20-29 years with 32.9% being between 30-39 years of age while 10.0% were 40 years and above as shown in Fig 4.

Fig 4: Gender and age of the Respondents

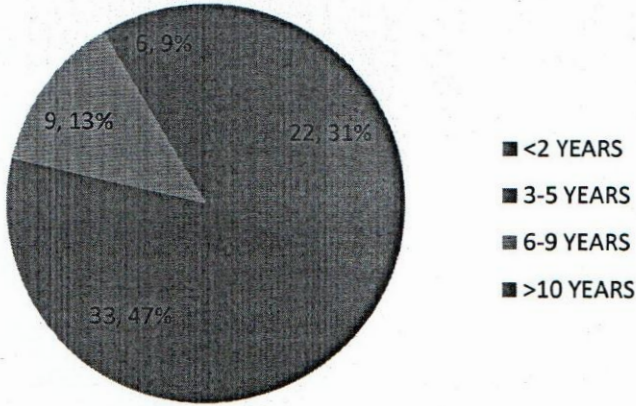


Source: Field Data (2013)

4.2.2 Respondents' Working Experience

The number of years the respondents have been working in the various bank is important since it may influence their understanding of how the ICTs work and thus influencing their job characteristics. The findings in figure 5, indicates that 31.4% of the respondents have been with their respective banks for less than three years, 12.9% for a period of between 6-9 years and 8.6% for a period of above 10 years while the remaining 31.9% have been with their respective banks for a period of less than 2 years.

Fig 5: Respondents' Working Experience



Source: Field Data (2013)

4.2.3 Level of Education of the respondents

From the findings, 98.6% of the respondents had attained education level of above diploma level as shown in Table 4.1 while only 1.4 % of the respondents had attained up to CPA part two level education.

Table 4.1: Highest level of education of the respondents

Variable	Frequency	Percentage
Diploma	9	12.9
Degree	50	71.4
Master	10	14.3
cpa part two	1	1.4
Total	70	100.0

Source: Field Data (2013)

4.3 ICT use by banks in Nakuru town

4.3.1 Extent of ICTs use by banks in Nakuru town

The first objective of this study was to characterize the ICTs used by banks in Nakuru town. From the findings 78.6% use branch networking, 64.3% use EFTPoS, 82.9% use internet banking and 90% use telephone banking as shown in Table 4.2.

Table 4.2: Extent of ICT use by banks in Nakuru town

Frequency	Frequency	Percent
Branch networking	55	78.6
EFTPoS	45	64.3
Internet banking	58	82.9
Telephone banking	63	90.0

Source: Field Data (2013)

4.3.2 Reasons for not using ICTs

The study also sought to determine the various reasons for not using the various ICTs in banks based in Nakuru town. On the basis of the study findings, (Table 4.3), the survey identified the following reasons: Environmental barriers (lack of network and high transaction load), Learning difficulty (lack of on-site support and lack of knowledge), Culture shock (foreign cultural imposition, compatibility with precursor and delays in work process) and Employee valuation (high cost of ICT system).

Table 4.3: Reasons for not using ICTS

Reasons	Percentage Responses (%)			
	Branch Networking	EFTPoS	Internet Banking	Telephone Banking
Environmental barriers	0.0	0.0	0.0	0.0
Learning difficulty	7.1	8.6	0.0	0.0
Culture shock	14.3	27.1	28.6	4.3
Employee valuation	0.0	0.0	0.0	0.0

Source: Field Data (2013)

According to the study data (Table 4.3), about 7.1 and 8.6 percent reported learning difficulty as a reason for not using branch networking and EFTPos respectively. This indicated that lack of knowledge and lack of on-site support to help employees solve system related problems were reasons why some of them did not use these ICTs in performing their work. On the basis of the field responses, a significant proportion of those not using the various ICTs found culture shock a reason: 14.3, 27.1, 28.6 and 4.3 percent attributed culture shock for not using branch networking, EFTPoS, internet banking and telephone banking respectively. This implied that use of ICTs by bank employees in Nakuru town brought about delays in their work process and incompatibility with the precursor and therefore the employees opted not to use them. In addition, the findings singled out environmental barriers and employee valuation as reasons for not using any specific ICT used by banks in Nakuru town.

4.4 The effect of ICT on Job Design Characteristics

4.4.1 The effect of ICT on Skill Variety

Table 4.4: Rating aspects of Skill Variety

Statement	Response (%)					Mean
	VL	L	A	H	VH	
Skill variety						
Degree to which your job requires use of different activities, talents and skills.	2.6	0.0	12.8	41.0	43.6	4.23
Job enlargement to include more duties and responsibilities.	2.5	5.0	12.5	12.5	67.5	4.38
Degree to which job requires change in body position and use of different muscles	5.3	2.6	10.5	31.6	50.0	4.18

Responses on skill variety were measured using three statements, each of these statements was measured on a five-point likert scale where 1 = very low (VL), 2 = low (L), 3 = average (A), 4 = high (H), and 5 = very high (EH). The higher the score, the greater the skill variety in the employees' job, and vice versa.

Table 4.4 indicates that the respondents rated all the three statements above average with the mean scores between $\bar{x} = 4.18$ and $\bar{x} = 4.38$. This shows that commercial banks employees rated their job as being high in skill variety, suggesting that their job included a higher variety of different activities, use of a number of different skills and talents.

4.4.2 The effect of ICTs on Task Identity

Table 4.5: Rating aspects of Task Identity

Statement	Response (%)					Mean
	VL	L	A	H	VH	
Skill Identity						
Degree to which job allows completion of whole task	5.0	7.5	12.5	25.0	50.0	4.08
Degree to which job includes organized consistent and ongoing training	5.1	0.0	20.5	30.8	43.6	4.08
Degree to which job allows change from one task to another	0.0	10.3	15.4	25.6	48.7	4.13
Degree to which job allows you to understand the linkage between methods, layouts and procedures	2.6	7.9	15.8	23.7	50.0	4.11

Responses on task identity were measured using four statements, each of these statements was measured on a five-point likert scale where 1 = very low (VL), 2 = low (L), 3 = average (A), 4 = high (H), and 5 = very high (EH). The higher the score, the greater the bank employees' knowledge of their tasks, and vice versa.

Table 4.5 indicates that the respondents rated all the four statements above average with the mean scores between $\bar{x} = 4.08$ and $\bar{x} = 4.13$. This shows that commercial banks employees' job included completion of a whole and identifiable piece of work; it did not include just doing a portion of a job. Therefore they were able to identify any finished product with their effort.

4.4.3 The effect of ICTs on Task Significance

Table 4.6: Rating aspects of Task Significance

Statement	Response (%)					Mean
	VL	L	A	H	VH	
Skill Significance						
Degree to which job impacts on the life of others	2.5	5.0	15.0	37.5	40.0	4.08
Degree to which job allows performance of managerial tasks	0.0	2.6	31.6	31.6	34.2	3.97
Degree to which you are able to teach others your job.	5.1	5.1	7.7	43.6	38.5	4.05
Degree to which your job is interesting	2.5	2.5	20.0	42.5	32.5	4.00
Degree to which job provides promotion opportunities	0.0	5.0	20.0	40.0	35.0	4.05
Degree to which job offers good status in the society	2.5	2.5	15.0	50.0	30.0	4.03

Responses on task significance were measured using six statements, each of these statements was measured on a five-point likert scale where 1 = very low (VL), 2 = low (L), 3 = average (A), 4 = high (H), and 5 = very high (EH). The higher the score, the greater the perception of bank employees on their job as having a substantial impact on the lives of other people, whether those people are in the immediate organization or in the external environment, and vice versa.

Table 4.6 indicates that the respondents rated all the six statements above average with the mean scores between $\bar{x} = 3.97$ and $\bar{x} = 4.08$. This shows that commercial banks employees believe they are doing something important in their organization or society, or both job, thus suggesting that banks employees experience their work as more purposeful, interesting and valuable.

4.4.4 The effect of ICTs on Autonomy

Table 4.7: Rating aspects of Autonomy

Statement	Response (%)					Mean
	VL	L	A	H	VH	
Autonomy						
Degree to which job gives freedom to plan and schedule	17.9	38.5	25.6	12.8	5.2	2.49
Degree to which job provides step by step aid throughout the process	21.1	31.6	10.5	31.6	5.3	2.68
Degree to which job provides accountability(audit trail)	15.4	28.2	28.2	17.9	10.3	2.79
Degree to which your job allow more responsibility and independence	28.2	30.8	20.5	10.2	10.3	2.44

Responses on autonomy were measured using four statements, each of these statements was measured on a five-point likert scale where 1 = very low (VL), 2 = low (L), 3 = average (A), 4 = high (H), and 5 = very high (EH). The higher the score, the greater the bank employees' perception of their job on provision of substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in doing the work, and vice versa.

Table 4.7 indicates that the respondents rated all the four statements below average with the mean scores between $\bar{x} = 2.44$ and $\bar{x} = 2.79$. This shows that commercial banks employees perceived their work as having less freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in doing the work.

4.4.5 The effect of ICTs on Feedback

Table 4.8: Rating aspects of Feedback

Statement	Response (%)					Mean
	VL	L	A	H	VH	
Feedback						
Degree to which job provides a clear, direct and understandable knowledge of performance (sense of accomplishment)	0.0	2.5	5.0	25.0	67.5	4.58

Feedback was measured using one statement which was measured on a five-point likert scale where 1 = very low (VL), 2 = low (L), 3 = average (A), 4 = high (H), and 5 = very high (EH). Table 4.8 indicates that the respondents rated feedback on their job to be high with the mean score of $\bar{x} = 4.58$. This shows that commercial banks employees' were provided with direction and clear information about the effectiveness of their performance.

4.5 Hypothesis testing.

The main objective of this study was to evaluate the effect of ICTs on employees' job characteristics. In order to respond to these objectives, the study tested the null hypotheses that:

H0: There is no significant effect of ICTs used on employee job characteristics in commercial banks within Nakuru town.

In this respect correlation analysis was done to determine the effects of the ICTs on the employees' job characteristics indicators (dependent variables). Pearson's coefficient of correlation (r) was used to assess the effect of the ICTs on job characteristics. Tables 4.9-4.13 present the multivariate correlation between the ICTs used in Nakuru banks and the measurable indicators of job characteristics and job outcome.

4.5.1 ICTs and skill variety

Table 4.9: Correlation between ICTs and Skill Variety

		Employee skill variety score
Branch networking index score	Pearson	.374*
	Correlation	
	Sig. (2-tailed)	.001
EFTPoS index score	Pearson	.082*
	Correlation	
	Sig. (2-tailed)	.004
Internet banking index score	Pearson	.087*
	Correlation	
	Sig. (2-tailed)	.042
Telephone banking index score	Pearson	.210*
	Correlation	
	Sig.(2-tailed)	.037

N = 70

*. Correlation is significant at the 0.05 level (2-tailed).

From Table 4.9, it is observed that there was a significant positive correlation between the ICT and employees' skill variety at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.374$ and $p = 0.001$), EFTPoS ($r = 0.082$ and $p = 0.004$), internet banking ($r = 0.087$ and $p = 0.042$) and telephone banking ($r = 0.210$ and $p = 0.03$). This shows that an increased use of these ICTs leads to an increase in skill variety. Suggesting that the greater the extent of use of these ICT by banks employees, the higher the level their job skill variety. Therefore, jobs of bank employees that used more of these ICT were more likely to have higher skill variety, and vice versa. This affirms Steers and Porter (1991) proposition that technology tends to stimulate job enlargement, defined as the increasing scope of a job through extending the range of job duties and responsibilities. This is in agreement with Keniston and Kumar

(2004), that ICT automate some aspects of a bank teller's work processes and simplify the workflow, but at the same time, reduce the amount of specialization needed for each teller, instead allowing them to become responsible for many new customer-facing transactions and increase the scope of banking practices with which a teller must be familiar, thus increasing the teller's skill variety.

4.5.2 ICTs and task identity

Table 4.10: Correlations between ICTs and task identity

		Employee task identity score
Branch networking index score	Pearson	.026*
	Correlation	
	Sig. (2-tailed)	.040
EFTPoS index score	Pearson	.058*
	Correlation	
	Sig. (2-tailed)	.035
Internet banking index score	Pearson	.097*
	Correlation	
	Sig. (2-tailed)	.022
Telephone banking index score	Pearson Correlation	.029*
	Sig.(2-tailed)	
		.003

N = 70

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.10, indicates that there was a significant weak positive correlation between the ICT and employees' task identity at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.026$ and $p = 0.040$), EFTPoS ($r = 0.058$ and $p = 0.035$), internet banking ($r = 0.097$ and $p = 0.022$) and telephone banking ($r = 0.029$ and $p = 0.003$). This shows that an increased use of these ICTs leads to a slight increase in task identity. Suggesting that the greater the extent of use of these ICT by banks employees, may lead to a slight increase in employees' performance of a whole task. This affirms Holman et al (2005) suggestion that ICT tend to allow users a wider compass in terms of business processes due to the automation provided by the ICTs. Also supports Morgeson and Campion (2003) that when parts of a job are automated, employees are freed up to participate in new areas of the business process.

4.5.3 ICTs and Task Significance

Table 4.11: Correlation between ICTs and Task Significance

		Employee task significance score
Branch networking index score	Pearson	.121*
	Correlation	
	Sig. (2-tailed)	.046
EFTPoS index score	Pearson	.352*
	Correlation	
	Sig. (2-tailed)	.003
Internet banking index score	Pearson	.156*
	Correlation	
	Sig. (2-tailed)	.048
Telephone banking index score	Pearson Correlation	.116*
	Sig.(2-tailed)	
		.035

N = 70

*. Correlation is significant at the 0.05 level (2-tailed).

From Table 4.11 above, it is observed that there was a significant positive correlation between the ICT and employees' perception of their task significance at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.121$ and $p = 0.046$), EFTPoS ($r = 0.352$ and $p = 0.003$), internet banking ($r = 0.156$ and $p = 0.048$) and telephone banking ($r = 0.116$ and $p = 0.035$). This shows that an increased use of these ICTs leads to an increase in employees' perception of their job significance. Suggesting that the greater the extent of use of these ICT by banks employees, the higher the perception of bank employees on their job as having a substantial impact on the lives of other people, whether those people are in the immediate organization or in the external environment.

This is in agreement with Campion et al (2005) that ICT positively influences task significance through the mechanism of job enrichment. This occurs when an employee's job is expanded to include higher degree of responsibility and authority.

4.5.4 ICTs and Autonomy

Table 4.12: Correlation between ICTs and Autonomy

		Employee autonomy score
Branch networking index score	Pearson	.014*
	Correlation	
	Sig. (2-tailed)	.000
EFTPoS index score	Pearson	.180*
	Correlation	
	Sig. (2-tailed)	.002
Internet banking index score	Pearson	.159
	Correlation	
	Sig. (2-tailed)	.090
Telephone banking index score	Pearson Correlation	.147
	Sig.(2-tailed)	
		.074

N = 70

*. Correlation is significant at the 0.05 level (2-tailed).

From Table 4.12, it was observed that there was a significant weak positive correlation between branch networking, EFTPoS and employees' autonomy at $p < 0.05$, Significance level (2-tailed test) and a weak positive correlation with internet banking telephone banking that was not significant at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.014$ and $p = 0.000$), EFTPoS ($r = 0.180$ and $p = 0.002$), internet banking ($r = 0.159$ and $p = 0.090$) and telephone banking ($r = 0.147$ and $p = 0.074$). This shows that an increased use of these ICTs would lead to a slight increase in autonomy. Suggesting that the greater the extent of use of these ICT by banks employees, may lead to a slight increase in employees' perception of their job on provision of substantial freedom, independence, and

discretion to the individual in scheduling the work and in determining the procedures to be used in doing the work.

This affirms Appelbaum (1997) that ICT use increases employees' autonomy. This is by creating an audit trail that records every work action a bank employee takes throughout the day and offers step-by-step aid throughout all the processes. This lessens the bank's need to closely monitor its employees with managers and consequently increasing an employee's sense of autonomy. Also supports Morgeson and Campion (2003) that when parts of a job are automated, employees are freed up to participate in new areas of the business process.

4.5.5 ICTs and Feedback

Table 4.13: Correlation between ICTs and Feedback

		Employee feedback score
Branch networking index score	Pearson Correlation	.362*
	Sig. (2-tailed)	.002
EFTPoS index score	Pearson	.302*
	Correlation	
	Sig. (2-tailed)	.011
Internet banking index score	Pearson	.163*
	Correlation	
	Sig. (2-tailed)	.046
Telephone banking index score	Pearson Correlation	.031*
	Sig.(2-tailed)	
		.019

N = 70

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.13, indicated that there was a significant positive correlation between the ICT and employees' feedback on their job at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.362$ and $p = 0.002$), EFTPoS ($r = 0.302$ and $p = 0.011$), internet banking ($r = 0.163$ and $p = 0.046$) and telephone banking ($r = 0.031$ and $p = 0.019$).

This shows that the greater the extent of use of these ICT by banks employees, the higher the level of their job feedback. Suggesting that an increased use of these ICTs leads to an increased direction and clear information about the effectiveness of the bank employees' job performance. This is in agreement with Morris and Venkatesh (2010) assertion that although in the absence of an ICT there is a great deal of interaction with managers (tellers at banks have to constantly interact with managers to get transactions approved) there is little or no systematic feedback to employees about their performance on an ongoing basis (error rate, transaction processing time, customer satisfaction). An ICT will allow the easy creation of reports that will provide greater feedback to tellers on their activities and performance (service time, number of customers served). Also specific customers' satisfaction ratings can be quickly and readily associated with a specific teller, thus providing feedback via error messages and chronographs, which detail how long a process is taking, and fast communication with management through electronic means when an employee either asks for it (in case of a question or problem) or needs it (in the case of outstanding or substandard performance).

4.6 T- test for Difference between the Means

A group means difference test was used to between-subjects comparisons between the employees who reported use of ICTs (branch networking, EFTPoS, internet banking and telephone banking) and those who did not. To test the mean differences of job characteristics within the employees who reported use of ICTs and those who did not, a within subject comparison using ANOVA followed by a Levene's test was conducted. Only tests that showed significant mean difference were used in the analysis of the findings.

4.6.1 Skill Variety

Table 4.14: Branch networking and skill variety independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Task identity score	Equal variances assumed	1.521	.222	3.205	68	.002	1.34545	.41980	.50776	2.18315
	Equal variances not assumed			3.412	24.361	.002	1.34545	.39437	.53215	2.15876

The ANOVA table above shows that $F = 1.521$ and $p < 0.05$, at 5% level of significance. This indicates that the difference in means was significant in scores for branch networking users and non users. Implying Branch networking affects skill variety, and that branch networking is useful as a predictor of employees' skill variety. Therefore, the model is statistically significant in predicting the effect of ICT on employee skill variety. Therefore concluding that ICT significantly affect skill variety thus rejecting the null hypothesis.

4.6.2. Task significance

Table 4.15: EFTPoS and task significance independent samples test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Task sign score Equal variances assumed	3.964	.051	3.098	68	.003	1.02222	.32995	.36381	1.68063
Equal variances not assumed			2.917	41.671	.006	1.02222	.35045	.31481	1.72963

There was significant difference in scores of task significance for EFTPoS users and non users. With $F = 3.964$ and $p < 0.05$, at 5% level of significance. Implying use of EFTPoS affects employees' perception of their work significance, and that EFTPoS is useful as a predictor of employees' task significance. Therefore, the model is statistically significant in predicting the effect of ICT on employees' perception of their job significance. Therefore concluding that ICTs have a significant effect on task significance hence rejecting the null hypothesis that ICTs have no significant effect on job characteristics.

4.6.3 Task Identity

Table 4.16: Branch networking and task identity independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Autonomy score	Equal variances assumed	1.452	.232	7.137	68	.000	1.90909	.26750	1.37531	2.44287
	Equal variances not assumed			7.680	24.783	.000	1.90909	.24858	1.39691	2.42127

The ANOVA table above shows that $F = 1.452$ and $p < 0.05$, at 5% level of significance. This indicates that the difference in means was significant in scores for branch networking users and non users. Implying Branch networking affects task identity and that branch networking is useful as a predictor of employees' task identity. Therefore, the model is statistically significant in predicting the effect of ICT on employees' task identity. Therefore rejecting the null hypothesis that ICTs have no significant effect on job characteristics.

4.6.4 Feedback

Table 4.17 Branch Networking and Feedback independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Feedback score	Equal variances assumed	11.575	.001	3.489	68	.001	1.71429	.49136	.73380	2.69477
	Equal variances not assumed			6.991	17.738	.000	1.71429	.24521	1.19857	2.23000

Table 4.18: EFTPoS and Feedback independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Feedback score	Equal variances assumed	.033	.855	2.611	68	.011	.96000	.36770	.22626	1.69374
	Equal variances not assumed			2.563	47.056	.014	.96000	.37460	.20642	1.71358

The ANOVA tables above shows that $F = 11.575$ and $p < 0.05$, and $F = 0.033$ and $p < 0.05$, at 5% level of significance for branch networking and EFTPos respectively. This indicates that the difference in means was significant in scores for branch networking and EFTPoS users and non users. Implying use of Branch networking and EFTPoS affects feedback, and that branch networking and EFTPoS are useful as predictors of employees' feedback. Therefore, the model is statistically significant in predicting the effect of ICT on employees' feedback on their job. Therefore rejecting the null hypothesis that ICTs have no significant effect on job characteristics.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings and makes conclusions based on the specific objectives of this study on the extent to which ICTs were used by banks in Nakuru town and the effect of these ICTs on Nakuru town banks employees' job characteristics. It also includes the study recommendations for improvement and for further research.

5.2 Summary and findings

5.2.1 Demographic characteristics of respondents

Majority of the respondents were male of the age bracket of 20-29 years. The findings also indicated that majority of the employees had worked in their respective banks for more than 3 years with education level above bachelors degree. The response rate in this study was 74%.

5.2.2 Extent of ICTs use by banks in Nakuru town

From the findings 78.6% use branch networking, 64.3% use EFTPoS, 82.9% use internet banking and 90% use telephone banking as shown in table 4.2. This implied that the use of ICTs in Nakuru banks is fairly high.

5.2.3 Reasons for not using ICTs

From the findings 7.1 and 8.6 percent reported learning difficulty as a reason for not using branch networking and EFTPos respectively. This indicated that lack of knowledge and lack of on-site support to help employees solve system related problems were reasons why some of them opted not to use these ICTs in performing their work. 14.3, 27.1, 28.6 and 4.3 percent attributed culture shock for not using branch networking, EFTPoS, internet banking and telephone banking respectively. This implied that use of ICTs by bank employees in Nakuru town brought about delays in their work process and incompatibility with the precursor and therefore the employees

opted not to use them. In addition, the findings singled out environmental barriers and employee valuation as reasons for not using any specific ICT used by banks in Nakuru town.

5.2.4 The effect of ICT on job design characteristics

5.2.4.1 The effect of ICT on Skill variety

The correlation analysis indicated that there was a significant positive correlation between the ICT and employees' skill variety at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.374$ and $p = 0.001$), EFTPoS ($r = 0.082$ and $p = 0.004$), internet banking ($r = 0.087$ and $p = 0.042$) and telephone banking ($r = 0.210$ and $p = 0.037$). Suggesting that the greater the extent of use of these ICT by banks employees, the higher the level their job skill variety. To test the mean differences of skill variety within the employees who reported use of ICTs and those who did not, a within subject comparison using ANOVA followed by a Levene's test was conducted. The ANOVA showed $F = 1.521$ and $p < 0.05$, at 5% level of significance, indicating difference in means was significant in scores for only branch networking users and non users. Implying Branch networking affects skill variety, and that branch networking is useful as a predictor of employees' skill variety. This was in agreement with Keniston and Kumar (2004) that ICT automate some aspects of a bank teller's work processes and simplify the workflow, but at the same time, reduce the amount of specialization needed for each teller, instead allowing them to become responsible for many new customer-facing transactions and increase the scope of banking practices with which a teller must be familiar, thus increasing the teller's skill variety.

5.2.4.2 The effect of ICT on Task identity

A significant weak positive correlation between the ICT and employees' task identity at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.026$ and $p = 0.040$), EFTPoS ($r = 0.058$ and $p = 0.035$), internet banking ($r = 0.097$ and $p = 0.022$) and telephone banking ($r = 0.029$ and $p = 0.003$) was observed. This shows that an increased use of these ICTs leads to a slight increase in task identity. The ANOVA test showed $F = 1.452$ and $p < 0.05$, at 5% level of significance. This indicated difference in means was significant in scores for

branch networking users and non users only. Implying Branch networking affects task identity and that branch networking is useful as a predictor of employees' task identity. This affirmed Holman et al (2005) suggestion that ICT tend to allow users a wider compass in terms of business processes due to the automation provided by the ICTs. Also supported Morgeson and Campion (2003) that when parts of a job are automated, employees are freed up to participate in new areas of the business process.

5.2.4.3 The effect of ICT on Task Significance

From the findings it was observed that there was a significant positive correlation between the ICT and employees' perception of their task significance at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.121$ and $p = 0.046$), EFTPoS ($r = 0.352$ and $p = 0.003$), internet banking ($r = 0.156$ and $p = 0.048$) and telephone banking ($r = 0.116$ and $p = 0.035$). This shows that an increased use of these ICTs leads to an increase in employees' perception of their job significance. In the ANOVA test there was significant difference in scores of task significance for EFTPoS users and non users. With $F = 3.964$ and $p < 0.05$, at 5% level of significance. Implying use of EFTPoS affects employees' perception of their work significance, and those EFTPOs are useful as a predictor of employees' task significance. This was in agreement with Campion et al (2005) that ICT positively influences task significance through the mechanism of job enrichment. This occurs when an employee's job is expanded to include higher degree of responsibility and authority.

5.2.4.4 The effect of ICT on Autonomy

A significant weak positive correlation between branch networking ,EFTPoS and employees' autonomy at $p < 0.05$, Significance level (2-tailed test) and a weak positive correlation with internet banking telephone banking that was not significant at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.014$ and $p = 0.000$), EFTPoS ($r = 0.180$ and $p = 0.002$), internet banking ($r = 0.159$ and $p = 0.090$) and telephone banking ($r = 0.147$ and $p = 0.074$). This shows that an increased use of these ICTs would lead to a slight increase in autonomy. Suggesting that the greater the extent of use of these ICT by banks employees, may lead to a slight increase in employees' perception of their job on job on

provision of substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in doing the work. The ANOVA tests above showed no significant F at 5% level of significance for any of the ICTs. This indicates that the difference in means was not significant in scores for branch networking, EFTPoS, internet banking and telephone banking users and non users. Implying use these four did not affects feedback, and that branch networking and EFTPoS are useful as predictors of employees' autonomy. Therefore, the model is statistically significant in predicting the effect of ICT on employees' autonomy. This shows that there are other factors apart from ICT that affect employees' job autonomy.

5.2.4.5 The effect of ICT on Feedback

Table 4.13, indicated that there was a significant positive correlation between the ICT and employees' feedback on their job at $p < 0.05$, Significance level (2-tailed test). With branch networking ($r = 0.362$ and $p = 0.002$), EFTPoS ($r = 0.302$ and $p = 0.011$), internet banking ($r = 0.163$ and $p = 0.046$) and telephone banking ($r = 0.031$ and $p = 0.019$). This shows that the greater the extent of use of these ICT by banks employees, the higher the level of their job feedback. Suggesting that an increased use of these ICTs leads to an increased direction and clear information about the effectiveness of the bank employees' job performance. The ANOVA test showed $F = 11.575$ and $p < 0.05$, and $F = 0.033$ and $p < 0.05$, at 5% level of significance for branch networking and EFTPos respectively. This indicated that the difference in means was significant in scores for branch networking and EFTPoS users and non users only. Implying use of Branch networking and EFTPoS affects feedback, and that branch networking and EFTPoS are useful as predictors of employees' feedback.

This was in agreement with Morris and Venkatesh (2010) assertion that although in the absence of an ICT there is a great deal of interaction with managers (tellers at banks have to constantly interact with managers to get transactions approved) there is little or no systematic feedback to employees about their performance on an ongoing basis (error rate, transaction processing time, customer satisfaction). An ICT will allow the easy creation of reports that will provide greater feedback to tellers on their activities and performance (service time, number of customers served). Also specific customers' satisfaction ratings can be quickly and readily associated with a

specific teller, thus providing feedback via error messages and chronographs, which detail how long a process is taking, and fast communication with management through electronic means when an employee either asks for it (in case of a question or problem) or needs it (in the case of outstanding or substandard performance).

5.3 Conclusion

This research has implications for the operations management literature, particularly for research on service operations management and role of technology in this context. This study also complements prior research on technology diffusion in operations management field. Based on the results from data analysis and findings of the research, one can safely conclude the following, based on the objectives of the study; Firstly, the Nakuru town banks recorded high use of ICTs (branch networking, EFTPoS, Internet banking and Telephone banking) by their employees in performance of their work. This showed that in today's banking environment, information technology is an indispensable competitive strategy. Secondly, the findings suggest that use of ICTs to automate service processes in an organization may be hindered by the may inhibit successful utilization of the ICTs. Thirdly, the results indicated that the use of ICT had significant positive influence on the job characteristics as hypothesized. Particularly; employees reported a significant positive increase in skill variety, task identity, task significance and feedback with branch networking and EFTPoS. Despite marked increase in skill variety, task identity, task significance and feedback, employees reported a small increase in autonomy which was not statistically significant.

5.4 Recommendations

Given the relationship between employees' attitude, behavior and quality of service they provide, if employees are reluctant to use an ICT and their job characteristics are unfavorably affected, it is more likely that their overall service performance and the organizational service quality will be affected. For successful implementation of ICTs in automation of services in an organization, the management should ensure that the contextual barriers such as lack of knowledge, lack of on-site support to help employees solve system related problems, delays in their work process and incompatibility with the precursor barriers are well addressed.

5.5 Suggestions for further studies

This study provided relevant information on the extent of the use of the ICTs in banks and their effects on employees' skill variety, task identity, task significance and feedback. It is important that further research is carried out to determine other than ICT use by bank employees, what other factors are affecting their job autonomy which was observed to be lower compared to other job characteristics. Also research should be conducted on other job characteristics other than the five from job characteristics model, since there are other job design characteristics that affect employees in their job. This study was conducted on banks within Nakuru town, it is therefore recommended that similar studies be carried out in other parts of the country for comparison purposes. Similar research studies should also be conducted in other economic sectors.

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APPENDICES

APPENDIX 1: LIST OF BANKS OPERATING IN NAKURU TOWN

No.	Small Banks	Middle Size Banks	Large Banks
1.	Prime Bank Ltd.	Chase Bank (K)	Equity bank Ltd
2.	Oriental Commercial Bank Ltd.	Barclays Bank of Kenya Ltd.	Kenya Commercial Bank
3.	Commercial Bank of Africa Ltd	Diamond Trust Bank Kenya Ltd.	National Bank of Kenya Ltd.
4.	First Community Bank	K-Rep Bank Ltd.	Family Bank Ltd
5.	Bank of Baroda (K) Ltd.	Standard Chartered Bank (K)	Co-operative Bank of Kenya
6.	Imperial Bank Ltd	CFC Stanbic Bank	
7.	Bank of Africa (K)	Credit Bank Ltd	
8.	Dubai Bank Kenya	Consolidated Bank of Kenya	
9.	Trans-National Bank Ltd.		
10.	Ecobank Ltd		
11.	Investment & Mortgages Bank		

Source: Central bank of Kenya Monthly Economic Review, (2011).

APPENDIX 2: WORK PLAN

ACTIVITY	SEPT. - 2012	OCT. - 2012	NOV. - 2012	DEC. - 2012	JAN. - 2013	FEB- 2013	MAR- 2013	APR- 2013	MAY - 2013	JUN-2013	JUL-2013	AUG-2013	SEP-2013	MAY-2014	MAY-2014
Proposal Development	X	X	X												
Proposal Correction				X	X										
Proposal Defense						X									
Proposal Correction & Submission to Grad. School							X	X							
Data collection									X	X					
Data analysis											X	X			
Report writing													X		
Thesis Defense														X	
Submission of final copies of thesis to graduate school															X

Source: researcher

APPENDIX 3: BUDGET

Item	Unit Cost in Kshs	Total in Kshs
a) Proposal Preparation		
50 page proposal typesetting and printing	40/- per page	2,000
8 Copies of proposal (photocopy)	3/- per page x 50 x 8	1,200
Traveling (to consult and visit the libraries)		3,000
Calling Charges (Consultation)	4/- per minute	2,000
Internet Services (To search for literature and downloading in hard copy)	1/- per minute to browse 10/- to print	4,000
b) Data collection		
Typesetting and printing a 6 page tool	30/- per page x 6	180
Photocopying the tool	3/- per page 100 x 7	2,100
c) Thesis Preparation		
70 page thesis; typesetting & printing	40/- per page x 8 x 70	22,400
Thesis binding	300/- per copy	3,000
SUB TOTAL		39880
10% Contingencies		3,988
GRAND TOTAL		Kshs. 43,868

APPENDIX 4: LETTER OF INTRODUCTION

Egerton University, Department of Accounting,
Finance and Management Science,
Nakuru Town Campus,
P.O BOX 13357-20100
Nakuru.

APRIL, 2013

Dear respondent,

**RE: A STUDY ON “THE EFFECT OF ICT ON JOB CHARACTERISTICS IN BANKS
IN KENYA.**

I am a post graduate student at Egerton university faculty of commerce pursuing a Masters degree in Business Administration. Currently I am undertaking a research entitled effect of ICT on job characteristics and job outcome as characterized in Kenyan banks case of banks operating in Nakuru town .Your bank has been selected to participate in the study through a purpose sampling of banks operating in Nakuru, and you have been selected as a respondent. Since the questionnaire forms an integral part of the study you are kindly requested to objectively respond to it and to give any other additional information you might feel is necessary for the study. I wish to assure you that the information you will provide will be used strictly for academic purpose only and will be treated with at most confidentiality. A report of the findings can be sent to you on request. Thank you.

Yours faithfully

Nyambega Ednah Kemunto

Tell No: 051-2214553

Mobile Tell No: 0723-150627

Email address: eddynyambes@yahoo.com

APPENDIX 5: NAKURU TOWN BANKS EMPLOYEES' QUESTIONNAIRE

Please be free to answer the questions as honestly as you can. Information given will be handled with a lot of confidentiality and used purely for academic purposes.

PART A. PERSONAL DETAILS APPENDIX (Tick where appropriate)

1. Name of bank(optional) _____
2. Gender : Male () Female ()
3. Age : 20 -29 ()
30-39 ()
Above 40 ().
4. What is your job level?
Top Level (Administrative) ()
Middle Level (Head of Department) ()
Lower Level (Others) ()
5. Number of years you have worked in this bank?
Less than 2 years ()
3 – 5 years ()
6 – 9 years ()
10 years & above ()
6. Indicate your highest academic qualification. Tick where appropriate
Primary level ()
Secondary level ()
Diploma ()
Degree ()
Master ()
Other (specify)

PART B: ICTs IN BANKING

1. By ticking where applicable indicate whether you use the following ICTs in doing your work.

ICTs	YES	NO
Branch Networking		
Electronic Fund Transfer and Point on Sale		
Internet Banking		
Telephone Banking		

2. If you do not use a specific ICT resource named above in performing your work, tick where appropriate the reasons why.

a. Branch Networking

REASONS	MARK
1.Lack of Network	
2.High transaction load	
3.Lack of on-site support	
4.Lack of knowledge	
5.Foreign cultural imposition	
6.Compatibility with precursor	
7.Delays in work process	
8.High cost of ICT system	

b. Electronic Fund Transfer and Point on Sale

REASONS	MARK
1.Lack of Network	
2.High transaction load	
3.Lack of on-site support	

4.Lack of knowledge	
5.Foreign cultural imposition	
6.Compatibility with precursor	
7.Delays in work process	
8.High cost of ICT system	

c. Internet Banking

REASONS	MARK
1.Lack of Network	
2.High transaction load	
3.Lack of on-site support	
4.Lack of knowledge	
5.Foreign cultural imposition	
6.Compatibility with precursor	
7.Delays in work process	
8.High cost of ICT system	

d. Telephone Banking

REASONS	MARK
1.Lack of Network	
2.High transaction load	
3.Lack of on-site support	
4.Lack of knowledge	
5.Foreign cultural imposition	
6.Compatibility with precursor	
7.Delays in work process	
8.High cost of ICT system	

PART C: JOB CHARACTERISTICS

Please rate your job by ticking where appropriate.

a. Skill Variety

Statement	Job Rating				
	Very low	Low	Average	High	Very high
Degree to which your job requires you use different activities, talents and skills.					
Job enlargement to include more duties and responsibilities.					
Degree to which job requires change in body position and use of different muscles					

b. Task Identity

Statement	Job Rating				
	Very low	Low	Average	High	Very high
Degree to which job allows completion of whole task					
Degree to which job includes organized consistent and ongoing training					
Degree to which job allows movement from one task to another change					
Degree to which job allows you to understand the linkage between methods, layout and procedures					

c. Task significance

Statement	Job Rating				
	Very low	Low	Average	High	Very high
Degree to which job impacts on the life of others					
Degree to which job allows performance of managerial tasks					
Degree to which you are able to teach others your job.					
Degree to which your job is interesting					
Degree to which job provides promotion opportunities.					
Degree to which job offers good status in the society					

d. Autonomy

Statement	Job Rating				
	Very low	Low	Average	High	Very high
Degree to which job gives freedom to plan and schedule					
Degree to which job provides step by step aid throughout the process					
Degree to which job provides accountability(audit trail)					
Degree to which your job allow more responsibility and independence.					

e. Feedback

Statement	Job Rating				
	Very low	Low	Average	High	Very high
Degree to which job provides a clear, direct and understandable knowledge of performance (sense of accomplishment)					

THANK YOU



Acceptance Letter

Dear Kemunto Nyambega,

Thanks for your contribution to the *Science Journal of Business and Management (SJBM)*. We are pleased to inform you that your manuscript:

No.: 1750131

Title: An evaluation of the effect of ICT on job characteristics in Kenyan banks: Case of banks in Nakuru town

has been accepted for publication in the Vol. 2, No. 2, issue of *Science Journal of Business and Management (SJBM)* in April 2014.

Congratulations!

Best Regards

Science Journal of Business and Management (SJBM)

Science Publishing Group

<http://www.sciencepublishinggroup.com>

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For and on behalf of
SCIENCE PUBLISHING GROUP INC

Joanna

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Authorized Signature(s)



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For and on behalf of
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Joanna

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