EFFECTS OF ENTREPRENEURIAL CONTEXT ON PERFORMANCE OF ENTERTAINMENT ENTERPRISES THROUGH ADOPTION OF TECHNOLOGY IN NAKURU TOWN, KENYA

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DECLARATION

Declaration by the Student

This thesis is my original work and has not been presented in any academic institution for an award.

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DEDICATION

I wholeheartedly dedicate this thesis to my dear wife Judith, loving Children Rachael Jeptoo, Terryanne Jepkeitany and Larry Rerimoi for their undying love and support during the entire journey towards the attainment of this award. Thank you for being with me through this very important journey.

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ABSTRACT

Small and Medium Enterprises (SMEs) play a critical role in both developed and developing economies. They greatly contribute to the Gross Domestic Product (GDP) as well as being a major job creator. It is viewed that over 90% of businesses in most

economies are categorized as SMEs, jurisdictional definitions notwithstanding. Information and Communication Technology (ICT) has been touted as the key driver leveraging knowledge-based economies and SMEs are not exceptional. This study focused on the effects of entrepreneurial environment on the entertainment enterprise performance through adoption of ICT owing to limited understanding on this phenomenon. This study was anchored on three theories viz., Diffusion of Innovation; Technological, Organizational and Environmental theory and Institutional theory. The study was guided by six research objectives namely to: examine the influence of the external enterprise environment on the performance of bars and night; assess the influence of the enterpriser characteristics on the performance of bars and night clubs; examine the influence of enterprise characteristics on the performance of bars and night clubs; evaluate the mediating role of ICT adoption in the relationship between the external enterprise environment and performance of bars and night clubs; evaluate the mediating role of ICT adoption in the relationship between the enterprise characteristics and performance of bars and night clubs; evaluate the mediating role of ICT adoption in the relationship between the enterpriser characteristics and performance of bars and night clubs. This study employed cross-sectional survey design. A quantitative approach was used in this study anchored on a post-positivist paradigm. The study was carried out in Nakuru town targeting bars and night club enterprises. Slovins' formula was used to determine a sample size of 236 enterprises from a target population of 580 bars and night clubs. Probability sampling techniques namely; stratified, systematic and simple random samplings were used to select the sample. Primary data was sourced using two sets of questionnaires for the owner and/or managers and employees. Data was analyzed using descriptive and inferential statistics with the aid of SPSS version 22 and AMOS version 21 softwares. The findings of this study indicate that bars and night clubs had adopted low-end technology tools and applications, used for basic communication and administrative purposes. The enterprisers further consider government and private sector as key impediments to technology adoption. Further findings indicated that technology adoption fully mediates the relationship between enterpriser's (β=.098, p=.001) and external (β=-.087, p=.008) contexts of entrepreneurial environment and enterprise performance. In addition, it had no mediating effect on the enterprise context (β=-.037, p=.222). This study concludes that enterprise environment had minimal influence on performance while the mediating effect of ICT adoption interrelationship between enterprise environment and performance was significant. The study recommends that stakeholders in the ICT industry undertakes needs assessment and provides requisite capacity development of entrepreneurs on ICT adoption and utilization. Longitudinal studies should be undertaken to enhance an understanding of the phenomenon.

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LIST OF ACRONYMS

B2B:	Business to Business
B2C:	Business to Consumers
EC:	Electronic Commerce
EDI:	Electronic Data Interchange
EFT:	Electronic Funds Transfer
ERP:	Enterprise Resource Programme
GDP:	Gross Domestic Product
ICT:	Information and Communication Technology
IS:	Information System
IT:	Information Technology
PIIT:	Personal Innovativeness in Information Technology
SCA:	Sustainable Competitive Advantage
SME:	Small and Medium Enterprise
TOE:	Technological, Organizational and Environmental

OPERATIONAL DEFINITIONS

Enterpriser: term used interchangeably with entrepreneur. The person who came up with the idea, harness the resources to set up the venture and undertake the running of the enterprise.

Entertainment enterprises: Consist of bars and night clubs. Bars are legally licensed enterprises that sell assorted alcohol and operate between 5 pm and 11 pm and Night Clubs Enterprises sell assorted alcohol accompanied by some designed entertainment component and operate from 7 pm to 3 am.

Entrepreneurial Context: Refers to determinants of ICT adoption namely: the enterpriser, enterprise and external environment contexts. The enterpriser in this study refers to the owner-manager. The enterprise environment comprised of factors within the control of the enterprise, while the external environment included legal-political, economic, social and cultural factors beyond the control of the enterprise and enterpriser.

ICT adoption: Refers to the intensity and usage of technologies that include but not limited to products and services such as desktop computers, laptops, handheld devices, mobile phones, security gadgets, entertainment gadgets, wired or wireless intranet, business productivity software, and their applications in the small service sector. Information System (IS) and Information Technology (IT) are used interchangeably with ICT.

ICT Diffusion: Refers to the ability to pass information, communication and technology from the innovator to the end user.

ICT intensity: Refers to the extent a certain ICT tool or application is utilized in enterprise activities.

Innovation: Refers to a novel idea, object or process that is used in place of an existing one because of its relative advantage.

Small and Medium Enterprise (SME): Small Enterprises are those entities, in the Kenyan context, with less than 10 employees and/or have an annual turnover of less than kshs. 500,000, whereas Medium Enterprises are enterprises with 10-49 employees and/or have an annual turnover of between kshs 500,000 and 5 million. Micro enterprises are defined within the SME definitional context.

Usage: Refers to the act of commercially exploiting the ICT tool and/or process for the benefit of the enterprise.

CHAPTER ONE
INTRODUCTION

1.1 Overview

This chapter highlighted the background of the study, statement of the problem, research objectives and hypotheses. It also focused on the scope of the study, limitation of the study, justification and significance of the study.

1.2 Background to the Study

Small and Medium Enterprises (SMEs) are considered to be the major economic drivers in both developed and developing economies (Kutlu & Ozturan, 2008). Abdel and Zaied (2012) argued that SMEs played a significant role in the economy and 90% of all enterprises in Egypt were categorized as SMEs. Mbatura and Wanjau (2013) and Ongori and Atambo (2016) posited that SMEs contributed to economic development, poverty reduction and employment creation in all economies (Esselaar & Ndiwalana, 2008; Katua, 2014).

Mohd et al., (2014) observed that other than employment and economic wealth, SMEs also stimulate competition, aid large firms and serve as a seedbed for growth (Mpofu & Gono, 2015). The SME sector, in virtually all countries, plays a key role in national economic development strategies by facilitating flow of information, capital, ideas, people and products (Mokaya & Njuguna, 2010; Makau & Wawire, 2013; Jaganathan & Mahmood, 2015).

The Organization for Economic Cooperation and Development (OECD) (1996) alluded that SMEs play a role in economic growth by providing the source for most new jobs. Over 95% of OECD enterprises were small and medium-sized and employed 60%-70% of total employment (Kutlu & Ozturan, 2008). SMEs created employment opportunities, adopted innovations and generated export opportunities (Ongori & Migiro, 2011).

Ashrafi and Murtaza (2008) portended that SMEs not only play an important role in the economy of a country, but were crucial to the country's economic stability. In New Zealand, SMEs made up more than 99% of all businesses and accounted for about 60% of employment. In the USA more than half of all the employment came from firms with fewer than 500 employees (Schumann, 2015). In the UK, SMEs employed 67 % of the workforce (Lange & Taylor, 2000) and in most EU member states SMEs constituted over 99% of enterprises, 67% of jobs created and 59% of Gross Domestic Product (GDP) (Ashrafi & Murtaza, 2008). Equally, United Nations Conference on Trade and Development (UNCTAD) pointed that SMEs accounted for 60-70% of all employment in developing countries (UNCTAD, 2001). In Turkey about 98% of all enterprises were SMEs and they employed about 58% of total employment (Birgul et al., 2008).

In Malaysia, SMEs accounted for 98.8 per cent of all enterprises, contributed 25.9 per cent of total manufacturing output, 25.9 per cent to value added production and employed 31.1 per cent of the country's workforce **(**Modh & Marzuki, 2014). SMEs comprised 87% of all firms operating in Nigeria, and contributed to the economic development (Akanbi, 2015).

In Kenya, by 2003, the SME sector employed 5.1 million people accounting for 74 per cent of the total employment and it also contributed to 18.4 per cent of the GDP (Kenya, 2009). In addition, the sector contributed 87% of all the new jobs created and it employed 77% of the total number of the workforce (Ongori & Migiro, 2011; Wachira, 2014). Despite SMEs constituting higher percentage in terms enterprises, its contribution to the GDP of their economies remained relatively low. In developing countries such as Malaysia and Kenya, they contributed 25.9% and 18.4% of the GDP respectively **(**Ongori & Migiro, 2011; Modh & Marzuki, 2014). Evidently, this showed that SMEs recorded low performance compared to its dominance in the economies.

Muzenda (2014) highlighted three categories of factors determining enterprise performance. Entrepreneur characteristics (Kristiansen, Furuholt & Wahid, 2003); enterprise characteristics (Swierczek & Ha, 2003; Willian, James & Susan, 2005) and external environment (Indarti & Langenberg, 2005). Dut (2015) named three broad factors considered determinants of enterprise performance namely; firm strategy (Mazdeh, Moradi & Mazdeh, 2011); internal environment (Chang, Hughes &Hotho, 2011) and external environment (Tan & Lin, 2014).

Fairoz, Hirobuni and Tanaka (2010) alluded that entrepreneurs' demographic profiles had a positive influence on enterprise performance. Furuholt and Wahid (2003) found that age, education qualification, managerial competencies and experience significantly influence enterprise performance. Mahmoud (2011) later affirmed that age, gender,

education, work experience and managerial competence of the entrepreneur had significant influence on the enterprise performance (Mascherpa, 2011). Gathenya, Bwisa and Kihoro (2011) in a study targeting women entrepreneurs in Kenya confirmed that age and level of education had an impact on the enterprise performance. According to Woldie, Leighton and Adesua (2008) age, level of education and previous experiences, motivational variables such as finance, employment creation and self-fulfillment had an influence on enterprise performance. Gender, desire to be independent and job satisfaction were not significant (Ibid). The positive effect of the age on enterprise performance was in line with the findings of Jalbert and Furumo (2011) and was consistent with the idea that young managers were more aggressive and took more risks.

Mothibi (2015) argued that managerial competence, education qualification and work experience showed positive relationship with enterprise performance. Kwabena (2011) had earlier suggested that formal education and the previous experience of the entrepreneur stimulated the growth of the enterprise and therefore impacted both performance and survival (Woldie et al., 2008). McMahon (2001) had revealed that experiences on the part of the enterprise owner significantly impacted on the enterprise performance.

Higher education and the previous experience were expected to enhance the ability of the entrepreneur to cope with shocks and seize opportunities (Ibid). Unger et al (2011) found a positive but small relationship between education and entrepreneurial success. Using 70 independent samples, their meta-analysis suggests a weak effect of education on the firm

financial performance. Mahmoud (2011) opined that entrepreneurs with higher level of market orientation lead to greater level of enterprise performance.

Pearce and Robinson (2013) categorized internal environment into visible assets, invisible assets and capability organization. Visible assets include but not limited to production facilities, land, raw materials and finances. Invisible assets included brand, reputation, moral enterprise, technical knowledge, patents, trademarks and accumulated experiences. Capability organization included skills and ability to combine assets, people and processes.

Abdullah and Ahmad (2011) argued that human resource management practices significantly affected Malaysian SMEs performance. Enterprise characteristics such as length of time in operation, size of the enterprise, sector and source of capital significantly influenced the enterprise performance (Smallbone, Leig & North, 1995). Furuholt and Wahid (2003) noted that the length of time an enterprise had been in operation had significant effect on enterprise performance. Enterprise indicators such as enterprise location, size of the enterprise, age of the enterprise and sector had positive effect on enterprise performance. Kristiansen, Furuholt and Wahid (2003) while undertaking a study on internet cafés in Indonesia found that there was a correlation between the age of the enterprise and the enterprise performance of SMEs. Lun and Quaddus (2011) showed that large enterprises performed better than small ones since they easily adopted new technology leading to sales growth.

External environment include customers, competitors, suppliers, government policies, regulatory agencies (Dut, 2015). According to Idris and Primiana (2015), it constituted

technology, sociological changes, global economy, policies and laws. External environment in which an enterprise is embedded could make a significant contribution to its performance (Neneh & Vanzyl, 2014) and could also present inverse relationship (De Jong, Phan and Van Ees, 2011).

Khosla (2013) posited that SMEs had been unable to penetrate regional and global markets and restricted to local markets, often facing stiff competition from incoming large firms. However, Information and Communication Technology (ICT) tools provided SMEs with an opportunity to compete favourably (Wanjau et al., 2012; Manuere & Gwangwava, 2012). Large enterprises had embraced and utilized ICT relatively compared to SMEs (Nyakuma & Shittu, 2016). Many SMEs adopted either basic or low-end ICT tools, with initiatives in most of these enterprises either not existing at all or never progressing beyond fixed phone lines or fax (Khosla, 2013; Cant & Wiid, 2015).

Ashrafi et al., (2008) asserted that governments around the globe recognize the importance of adoption of ICT by SMEs and created special groups to study various aspects of ICT adoption. Olise & Anigbogu (2014) argued that ICTs had assumed a central position in the development agenda of most countries owing to its role in facilitating socio-economic development (Frempong, 2004; GoK, 2006). These technologies are highly potent forces in terms of bringing alternative and unprecedented technical solutions (Assefa, 2009) and are pre-requisites for a country to achieve her development goals (Mingle & Dzandu, 2013; Akomeah (2004).

Assefa (2009) pointed that ICT constituted a broad field of information processing and communication through the use of computing devices, computer programs and also

telecommunication equipment and techniques. Thus, ICTs is a collective term for a wide range of software, hardware, telecommunications and information management techniques, applications and devices, and used to create, produce, analyze, process, package, distribute, receive, retrieve, store and transform information (Porter & Millar, 1985; Brady & Saren, 2002).

Appiah and Opare (2015) opined that enterprises were currently utilizing ICT, not only for cutting costs and improving efficiency, but also for providing better customer services. According to Makau and Wawire (2013) Information is a basic requirement for enterprise creation, growth and survival; and is capable of easing information gaps in the SME sector. It enhances SME efficiency, reduces costs, and broadens market reach, locally and globally; resulting in job creation, revenue generation and overall country competitiveness (Mokaya & Njuguna, 2010; Wachira, 2014). Ashrafi et al., (2008) revealed that 80% of the SMEs realized reducing costs, while 53% had improved revenue and 57% had an impact on customer relationship owing to ICT.

Whereas ICT enhances development, growth and survival of vibrant enterprises, its adoption and use by entertainment enterprises in Kenya remains relatively low (Mokaya, 2012). Equally, despite the importance of ICT and emphasis to encourage SMEs to adopt ICT, it has been slow (Mokaya, 2012). Different authors took diametrically opposing stance with regard to factors responsible for ICT adoption and by extension SME performance in the service sector and particularly entertainment sector.

1.3 Statement of the Problem

Information and Communication Technology adoption in enterprises has demonstrated a positive impact on enterprise performance. The key benefits were enterprise operational efficiency that results in opportunity seizing, value creation, market access and competitiveness. Studies suggested that ICT adoption and integration was faster among large enterprises compared to SMEs, owing to capacity to finance and sustain. The ability to adopt and integrate ICT is dependent on resources available and accessible, which facilitate risk-taking on new untested innovations in the market.

Information and Communication Technology applications provide several benefits across a wide range of intra- and inter-firm business operations and transactions. They contribute to improvement of information and knowledge management in the enterprise, reduce transaction costs and increase the speed and reliability of transactions for both business-to-business (B2B) and business-to-consumer (B2C) transactions. In addition, they are effective tools for improving external communications and quality of services for established and new customers.

Whereas ICT is a key driver for enterprise performance in the SME sector, the survival, growth and expansion of enterprises in the entertain sector (bars and night clubs) in Kenya remain relatively low. The current situation manifests low levels of ICT adoption among SMEs owing to a number of factors which range from the enterprisers orientation, enterprise capabilities and enterprise environment. This thus begs the key question: why do SMEs lag behind in ICT adoption as a strategy for enterprise performance compared to large scale enterprises? It is against this backdrop that the researcher intends to find out the missing link that has impeded the degree and intensity of ICT adoption as a driver

for enterprise performance among SMEs in the entertainment sector (bar and night club enterprises) in Nakuru town.

1.4 Research Objectives

This section highlighted the broad and specific objectives, which guided the study.

1.4.1 Broad Objective

The broad objective of this study was to assess the effects of entrepreneurial context on the performance of entertainment enterprises through adoption of Information and Communication Technology in Nakuru town, Kenya.

1.4.2 Specific Objectives

The specific objectives of this study were to:

i) Examine the influence of the external enterprise environment on the performance
of bars and night clubs in Nakuru town.

ii) Assess the influence of the enterpriser characteristics on the performance of bars and night clubs in Nakuru town.

iii) Examine the influence of enterprise characteristics on the performance of bars and night clubs in Nakuru town.

iv) Evaluate the mediating role of ICT adoption in the relationship between the external enterprise environment and performance of bars and night clubs in Nakuru town.

v) Evaluate the mediating role of ICT adoption in the relationship between the enterprise characteristics and performance of bars and night clubs in Nakuru town.

vi) Evaluate the mediating role of ICT adoption in the relationship between the enterpriser characteristics and performance of bars and night clubs in Nakuru town.

1.5 Research Hypotheses

This study was anchored on the following hypotheses.

H_{01}: There is no significant relationship between external enterprise environment and enterprise performance in bars and night clubs in Nakuru town.

H_{02}: There is no significant relationship between enterpriser characteristics and enterprise performance in bars and night clubs in Nakuru town.

H_{03}: There is no significant relationship between enterprise characteristics and enterprise performance in bars and night clubs in Nakuru town.

H_{04}: There is no significant relationship between external enterprise environment and enterprise performance with mediating effect of ICT adoption.

H_{05}: There is no significant relationship between enterprise characteristics and enterprise performance in bars and night clubs in Nakuru town, with mediating effect of ICT adoption.

H_{06}: There is no significant relationship between enterpriser characteristics and enterprise performance in bars and night clubs in Nakuru town, with mediating effect of ICT adoption.

1.6 Significance and Justification of the Study

1.6.1 Significance of the study

This study served both practical and theoretical purposes. The study elicited findings on ICT adoption as a mediator between entrepreneurial context and enterprise performance among the SME practitioners, hence provide a platform for interrogating both accelerators and inhibitors of this process. This helped shade light on the probably reasons why these adoptions were either embraced slowly or not adopted at all.

The study also benefits future researchers as a source of literature on the contexts undertaken in the study. Equally, it will also help researchers identify gaps for future research topics on the same. Other scholars would have an opportunity to critique the entire work as well as models developed from the study. This would enhance the depth of knowledge on the phenomenon.

Policy drafters would come up with strategies aimed at fast tracking the adoption and usage of ICT among the SMEs. This would ensure that policy makers would come up with relevant legislations aimed at creating an enabling environment for ICT access, adoption and usage among SMEs.

1.6.2 Justification of the Study

Large firms are known to be faster in the adoption of ICT innovations contrary to SMEs, yet the benefits to both are enormous. In a competitive environment, SMEs which embrace ICT adoption have been proven to be more competitive than those sticking to old school ways of thinking and operating. It was therefore necessary to commission this study to shed more light on why these SMEs were shying away from efficiencies afforded by these new technologies.

It was also observed from the extant body of literature that there have been limited studies done on the phenomenon under study especially in the service sector. Of paramount importance was that there was scanty literature concerning bars and night clubs in developing countries, Kenya included. This indeed made the topic a fertile ground for research.

Another rationale for carrying out this study was the future business environment. SMEs must be prepared to fight for their space in the knowledge-based economy, currently being dominated by large and established firms. The fighting front is about using ICT tools to produce, process, disseminate and store information for strategic competition. There was therefore need to do this study to offer solutions to the entertainment enterprises on how to quicken the adoption process.

Additionally, entertainment enterprises in both developed and developing countries play a pivotal role in leveraging the economy. Majority of enterprises in developing and developed countries were enterprises and they also provided massive employment opportunities. If these enterprises embrace the benefits of ICTs, they are likely to expand, consequently helping spur the economy as well as create more job opportunities.

Lastly, the Government of Kenya has legislated several policy documents on SMEs and the ICT sector, aimed at preparing the sector for a paradigm shift to knowledge-based economy. Rafts of proposals had been postulated in these documents yet decades later, the impact of ICT in the entertainment sector was insignificant. The study aimed at providing an insight into the probable reasons for this continued scenario.

1.7 Scope and delimitations of the Study

This study focused on the mediating role of ICT adoption between entrepreneurial environmental characteristics and enterprise performance by SMEs in bars and night clubs in Nakuru town, Kenya. The study targeted bars and night clubs which have been in operation for at least one year. Bars and night clubs which have been operation for at

least one year would have stabilized and invested in some ICT tools and applications. The study was undertaken between Jan 2016 and February 2016.

1.8 Limitations to the Study

The first limitation of the study was the research design employed. Descriptive survey is a research design known to touch only the surface of the research field and does not make a deeper thrust of the subject under consideration. It does not have the qualities attributed to other designs used in qualitative approaches. However, the researcher used validated constructs drawn from past literature to develop the research instrument hence met the requisite thresholds for both reliability and validity.

Secondly, was the sample size picked for the study. This was attributable to the fact that the sample was small but representative of the target population. To address this challenge, researcher employed probability sampling techniques, which have been confirmed to offer credible empirical results.

Finally, the study was localized to bar and night club enterprises domiciled in Nakuru town. The findings of the study may not be adequate for empirical generalizations. However, the researcher adhered to all the rules to ensure that these findings were generalized in study areas manifesting similar attributes like Nakuru town.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This chapter presented theories underpinning the study, SME and the economy, SME and ICT adoption and the concept of ICT adoption in the entertainment sector. It also highlighted the influence of environmental context on enterprise performance, benefits of ICT adoption, ICT and SME performance and conceptual framework. Other literature concerned study model and summary and research gap.

2.2 Theoretical Framework

This study was based on three scientific theories namely: Diffusion of Innovation theory by Everett Rogers (1985), Technology, Organization and Environment (TOE) theory by Tornatzky and Fleischer (1990) and Institutional theory by Scott and Christensen (1995). This study derived variables and indicators from the three theories.

2.2.1 Diffusion of Innovation Theory

Diffusion of innovation is the process by which an innovation was communicated through certain channels over time among the members of a social system (Rogers, 1985). This theory was premised on four key elements of diffusion namely; Innovation, social system, time and communication channel, which informed the design of this study.

Rogers (2003) further described the innovation-decision process as “an information-seeking and information-processing activity, where an individual was motivated to reduce uncertainty about the advantages and disadvantages of an innovation”. For Rogers

(2003), the innovation-decision process involved five steps: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation.

Knowledge phase was when the person becomes aware of an innovation and has some idea of how it functions. The *persuasion* phase was where the person forms a favorable or unfavorable attitude toward the innovation. The *decision* phase was where the person engages in activities that lead to a choice to adopt or reject the innovation. The *implementation* phase was where person puts an innovation into use and the *confirmation* phase was where the person evaluates the results of an innovation-decision already made (Rogers, 1995). An individual seeks information at various stages in the innovation-decision process in order to decrease uncertainty about an innovation's expected consequences. Enterprisers in bars and night clubs live through these phases when confronted by a new technology in the market. At each phase certain actions inform the possibility of adoption or otherwise.

In adopting a new innovation, Rogers (1995) considered time as a measure of the rate of adoption of a novel idea. Innovators were categorized into five adopter categories based on time taken to adopt the innovation. These adopter categories and their percentages were: Innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%) and Laggards (16%).

The *innovators* (2.5%) had an interest in new ideas which in turn vacate them out of a local circle of peer networks into a more cosmopolite social relationships. Innovators often control substantial financial resources that cushion risks associated with the new innovation. While an innovator may not be respected by the other members of a social system, the innovator plays an important role in the diffusion process in launching the

new idea in the system by importing the innovation from outside of the system's boundaries. Thus, the innovator plays a gatekeeping role in the flow of new ideas into a system. Enterprisers who fall under the category of innovators embrace the new innovations before the others in the sector.

Early adopters (13.5%) were a more integrated part of the local system than were innovators. Whereas innovators were cosmopolites, early adopters were ordinary members of the local network. It has the greatest degree of opinion leadership in most systems. Potential adopters look to early adopters for advice and information about the innovation. This adopter category was generally sought by change agents as a local missionary for speeding the diffusion process and a role-model for many other members of a social system. The early adopter decreases uncertainty about a new idea by adopting it, and then conveying a subjective evaluation of the innovation to near-peers through interpersonal networks.

The *early majority* (34%) adopt new ideas just before the average member of a system. They interact frequently with peers, but rarely hold positions of opinion leadership in a system. It makes up one-third of the members of a system. They take time to make a decision to adopt a new idea, preferring often to be neither the first nor the last to adopt the new idea. Adoption of ICT tools and applications in bars and night clubs requires early majority to offer the adoption traction.

The *late majority (34%)* adopt new ideas just after the average member of a system. Like the early majority, they make up one-third of the members of a system. Adoption may be the result of increasing network pressures from peers. Innovations were approached with skepticism and caution, and they do not adopt until most others in their system have done

so. Based on relatively scarce resources meant that most of the uncertainty about a new idea must be removed before the late majority feel that it was financially safe to adopt.

Laggards (16%) have a local network outlook of all adopter categories with many near isolates in the social networks of the system. The laggards rely on the past as a point of reference hence decisions based on previous actions. Laggards tend to be suspicious of innovations and change agents. They have limited resources thus tend to resist new ideas due to the degree of the opportunity cost. Enterprisers who fall in this category take substantial amount of time to make an adoption decision.

According to Rogers (1995), adoption is deemed achieved when the critical mass point is attained. The concept of the critical mass implied that outreach activities should be concentrated on getting the use of the innovation to the point of critical mass. Efforts should be focused on the early adopters, the 13.5 percent of the individuals in the system to adopt an innovation after the innovators have introduced the new idea into the system.

The rate of adoption was usually measured as the number of members of the system that adopt the innovation in a given time period. According to Rogers (1985), an innovation's rate of adoption was influenced by five attributes of innovation. They were *relative advantage, complexity, compatibility, Trialability* and *Observability*. These were affective oriented attributes which are easily influenced by social reinforcement from the social system.

Relative advantage is the degree to which an innovation was perceived as better than the idea it supersedes. The degree of relative advantage may be measured in economic terms, but social-prestige factors, convenience, and satisfaction were also often important

components. The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption was going to be. New ICT innovations in bars and night clubs would be quickly adopted if perceived to offer more advantages than the previous innovation.

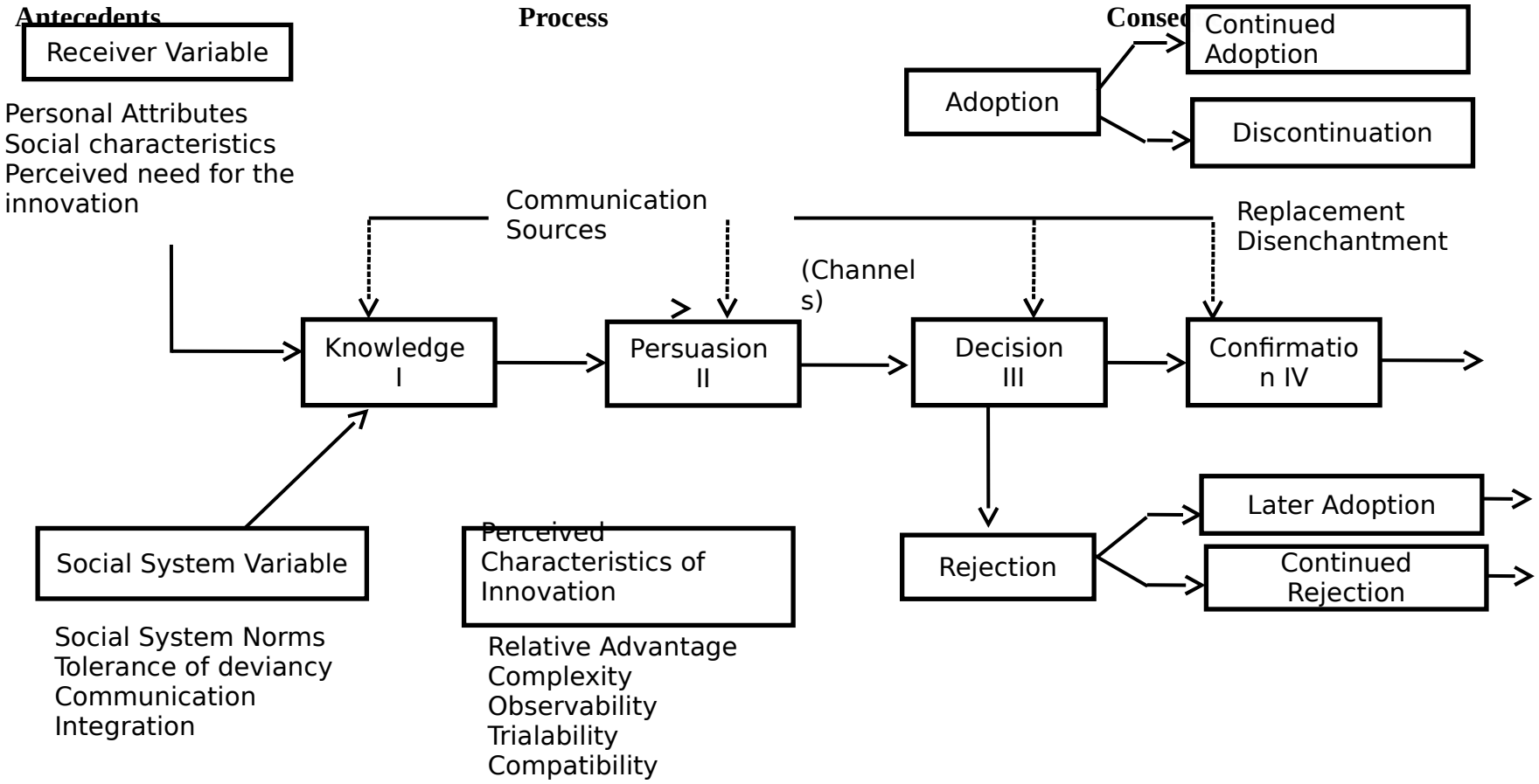
Compatibility is the degree to which an innovation was perceived by users as being consistent with the existing values, culture, past experiences, and needs of potential adopters. Ideas that were in line with the social norms were adopted faster than those that contravened or contradicted the social norms of the social system.

Complexity is the degree to which an innovation was perceived as difficult to understand and use. If an innovation was perceived to be complex to understand and use, there was a likelihood of low adoption. The contrary is true. Enterprisers with poor understanding would of the innovation in the entertainment sector would delay its adoption.

Trialability is the degree to which an innovation may be experimented with on a limited basis. New ideas that could be tried on the smaller or divisible units would be generally adopted more quickly than innovations that were not divisible and triable. Such innovation presented less uncertainty to the potential adopter. This phenomenon explains why certain innovations in bars and night clubs could be quickly adopted than indivisible ones.

Observability is the degree to which the results of an innovation were visible to others. If potential adopters were able to see or observe the benefits of the innovation, they were more likely to adopt it. Such visibility, networking and peer discussion enhanced persuasion among the members of the social system. Enterprisers in the entertainment sector need visual innovations to encourage the adoption.

Rogers (2003) reported that 49-87% of the variance in the rate of adoption of innovations was explained by the perceived characteristics of innovation. In addition to these attributes, the innovation-decision type (optional, collective, or authority), communication channels (mass media or interpersonal channels), social system (norms or network interconnectedness), and change agents may increase the predictability of the rate of adoption of innovations. A social system is a set of interrelated units that were engaged in joint problem-solving to accomplish a common goal. The members or units of a social system may be individuals, informal groups, organizations, and/or subsystems. The social system constituted a boundary within which an innovation diffuses (Rogers, 2003). In summary, Rogers (2003) argued that innovations offering more relative advantage, compatibility, simplicity, trialability, and observability would be adopted faster than other innovations. This study drew variables from diffusion of innovation theory to understand the adoption process in the entertainment sector. Perceived attributes of innovation informs the enterprisers perception of the benefits of the innovation.



Source: Rogers (1995)

Figure 2.1 Diffusion of Innovation Model

2.2.2 Technology, Organization and Environment Theory (TOE)

Technology, organization and environment (TOE) theory (Tornatzky & Fleisher 1990) was also used to anchor this study. The theory posited that the process by which a firm adopts and implements technological innovations was influenced by three contexts namely: technological, organizational and environmental contexts.

The environmental context included the size and structure of the industry, the firm's competitors, the macroeconomic context, and the regulatory environment. The organizational context referred to the characteristics and resources of the firm, including the firm's size, degree of centralization, degree of formalization, managerial structure, human resources, amount of slack resources, and linkages among employees. The technological context included the internal and external technologies relevant to the firm, including equipment, tools and processes. The mediating variable in the study was ICT adoption, which linked the relationships between the environmental context and enterprise performance. The study picked constructs from the three contextual perspectives in order to develop the modified conceptual framework.

2.2.2.1 Environmental Context

The environmental context is the arena surrounding a firm, consisting of multiple stakeholders such as industry members, competitors, suppliers, customers, the government and the community. It influences how a firm interprets the need for innovation, its ability to acquire the resources for pursuing innovation, and its capability for actually deploying it. These stakeholders could either support or block technological innovation. Changing market and competitive conditions prodded firms to use various forms of innovation.

Government regulation was a tool for constraining a firm's operational activities, increasing costs of production, and instigating an investigation of technologies that must meet specified criteria. Finally, dominant customer firms could exert their power to shift their suppliers' production activities to comply with its requirements.

2.2.2.2 Organizational Context

Descriptive measures characterized the "organizational context" in terms of firm size; the centralization, formalization, and complexity of its managerial structure; the quality of its human resources and the amount of slack resources available internally. It also focused on formal and informal linkages within and outside the firm; decision making and internal communication methods; and boundary spanning mechanisms to communicate with the external environment (Akomea-Bonsu & Sampong, 2012).

Top executives could energize major organizational changes by communicating a clear image of the firm's strategy, core values, and role of technology in meeting this strategy; sending consistent signals within and outside the firm about the value of the innovation; and creating a team responsible for crafting a vision relevant to the innovation (Ladokun & Osunwole, 2013; Noor & Shifa, 2014)

2.2.2.3 Technological Context

The TOE framework suggested a method of implementing a technology innovation in the firm. It focused on variables such as perceived direct and indirect benefits of technological innovation, firm's technological readiness, technology integration and potential support for technology. Equally, Tornatzky and Fleischer (1990) posited that

such technologies must meet the security threshold for it to be accepted by the organization.

2.2.3 Institutional Theory

Scott and Christensen (1995) argued that organizational decisions were not driven purely by rational goals of efficiency but also by social, cultural factors and legitimacy factors. The theory posited that firms become more similar due to isomorphic pressures and pressures for legitimacy (Dimaggio & Powell, 1983). This meant that enterprises tend to become homologous over time as competitive and customer pressures motivate them to copy industry leaders. Competition among enterprises spurs adoption of technology.

Organization's reaction to institutional pressure was crucial for its success and survival. Emphasizing field-level structural processes, DiMaggio and Powell (1983) argued that organizations increasingly become similar as rational actors try to change them. The enterprises engage in the process of homogenization leading to isomorphism (Paauwe & Boselie 2003). Isomorphism forces one unit in a population to resemble other units that face the same set of institutional conditions (DiMaggio & Powell, 1983).

This study drew dimensions and indicators from these three theories. Diffusion of Innovation theory contributed indicators related to innovation attributes. These were relative advantage, compatibility, complexity, Trialability and Observability. DOI theory has been instrumental in many adoption studies. TOE theory helped the study derive three sets of indicators measuring the two dimensions of entrepreneurship streams. These dimensions were external environment and enterprise environment. Technological aspects regarding past enterprise commitment of ICT tools and applications were captured by this

theory. Organizational context derived indicators which interrogated the enterprise environment based on size, operations and organizational resources. Environmental context derived indicators related to the external environment. These indicators included but not limited to economic, social, cultural, legal and political factors which had a bearing on the enterprise.

Institutional theory was premised on the enterprise behavior of imitating each other. Enterprises tend to adopt ICT not because they want to enhance their competitive edge but rather to copy the market leaders. Isomorphism depicted a phenomenon of similarity among the enterprises. This theory was important in deriving the core indicators for enterprisers' context. Overall, TOE theory was the most instrumental theory that heavily contributed to the indicators adapted for this study.

2.3 SME Sector and the Economy

There is no generally accepted definition of SMEs (Mbataru & Wanjau, 2013). This is attributed to the fact that SME classification of enterprises into either large-scale or small scale is subjective and qualitative (Adebayo et al., 2013). SME typology could be defined using several indicators, such as number of employees in the enterprise, size of fixed assets employed, amount of capital invested, annual turnover and the nature of the enterprise among others (Scupola, 2009; Awa & Emecheta, 2014).

According to Jaganathan et al., (2013), SMEs in Malaysia were categorized into micro, small and medium enterprises. Micro enterprises had less than 5 workers, small enterprises had between 5-50 workers and medium had between 51-150 workers.

In South Africa, SMEs were categorized into 4 key levels. Micro, employing less than 5 workers; Very small employing between 10-20 workers; Small employing between 21-50 workers and medium employing more than 50 workers (Cant et al.,2015). According to a research done in Sub-Saharan Africa, Micro are enterprises with less than 10 workers, small are enterprises with 10-49 workers, medium are enterprises with between 50-250 workers and large enterprises are those with more than 250 workers (Schumann, 2015).

A study by Abdel and Zaied (2012) on SMEs in Egypt, suggested that SMEs comprise of Micro enterprises (less than 10 employees), Small enterprise (10-49 employees) and medium enterprises (50-99 employees). A similar study in Zimbabwe (Manuere et al., 2012), categorized SMEs into Micro enterprises (less than 10 workers), small enterprise (10-49 workers) and medium enterprise (less than 250 workers).

According to Gray (2000), SMEs comprise micro, small and medium enterprises in Kenya. He argued that the common basis for categorization was the number of employees in the enterprise. He postulated that enterprises with less than 10 workers were labeled micro, 10-50 workers labeled small and those with workers ranging 51-100 were labeled medium. GoK (2005) later defined SMEs as those formal or informal enterprises with employees ranging 1-100. Later, Ongori and Atambo (2016) defined SMEs in Kenya as formal and informal enterprises employing between 5-99 full time workers (Kiveu & Ofafa, 2009; Ongori & Migiro, 2011; Aduda, Magutu & Wangu, 2012; Muturi, 2015). This study adopted Gray (2000) categorization of SMEs in the entertainment sector (bars and night clubs) in Nakuru town.

In Turkey, about 98% of all enterprises are SMEs employing about 58% and are believed to be the most important factor that will take Turkey out of the economic crisis and initiate growth (Dalrymple, 2004). According to the Observatory of European SMEs (2003), 92% of all European enterprises employ less than 10 people. Both EU policy and UK regional development agencies have sought to actively promote small and medium sized enterprises in the country with the aim of bolstering competitiveness and encouraging collaboration with like-minded businesses, providing the basis for innovation and accelerated growth (Harindranath et al., 2008). In Singapore, 51 per cent of the total workforce is employed in the SMEs (Lukacs, 2005).

Most Nigerians derive their income from a combination of agricultural activity and operation of SME (Adebayo & Balogun, 2013; Akanbi, 2015). Statistics on the number, geographical distribution and activities of the SME sector are very partial and highly unreliable (Lal, 2007). The best estimates available suggest that SMEs comprise 87% of all firms operating in Nigeria, although the total number of registered firms in Nigeria is also unknown (World Bank, 2005). This could be attributed to lack of regulators. In Kenya, by 2003, the sector employed 5.1 million people accounting for 74 per cent of the total employment and it also contributed to 18 per cent of the GDP (Kenya, 2009). Entertainment sector in Kenya constitute a key sector that draws many enterprises in the tours and travels, hospitality and arts and music. Bars and night clubs fall within this sector and contributes to the GDP.

2.4 Concept of ICT Adoption

Information and Communication Technology (ICT) has been contextualized to mean diffusion and adoption in all sectors of the economy (Ghobakhloo & Arias-Aranda, 2011). Hollander & Denna, (1999) opined that ICT is a technological aspect of Information System (IS), which is aimed for creation of computer-based Information System by using computer systems in organizations.

According to Taylor (2015), ICTs constitute a wide range of software, hardware, telecommunications and information management techniques, applications and devices. Collectively, they create, produce, analyze, process, package, distribute, receive, retrieve, store and transform information (Awa et al., 2014). Entertainment enterprises could use ICT run operations, processes and procedures.

Furthermore, Attaran (2003) argued that ICTs were capabilities offered to organizations by computers, software applications, and telecommunications to deliver data, information, and knowledge to individuals and processes (Taylor, 2015). This view supported Carr and Smeltzer (2002) who had earlier argued that ICT was the use of automated purchasing systems, supplier links through electronic data interchange (EDI), and computer-to-computer interlinks with key suppliers and information systems. Tan & Chong (2009) indicated as application of Information and Communication Technologies (ICT) tools including computer hardware, software, and networks required for connecting to the Internet (Ladokun et al.,2013; Mbataru et al., 2013; Ndekwa, 2014).

In this study IT covered ICT, **i**nternet and their infrastructure including computer hardware and software, those technologies used to enhance effectiveness of individuals and organizations including but not limited to any computer application and required

hardware packages. Examples were mobile banking, intranet, extranet, supply chain communications systems, security systems and electronic supply chain management systems (Ghobakhloo et al., 2011; Harshana et al., 2015).

This study adopted the later view which aggregated the uses of computer hardware and software, telecommunication resources as well as media to deliver services to the customers. In the entertainment sector, such devices were used for transactions, administration, communication, entertainment and knowledge management. The study examined ICT tools and applications used in bars and night clubs to facilitate operations. These operations included transactions, administration, entertainment, knowledge management and communication.

2.5 SME and ICT Adoption

SMEs have embraced ICT tools such as email, Internet, wireless, telephones and kinds of applications such as stock control, sales, marketing, human resources management, enterprise resource planning (Akomea-Bonsu & Sampong, 2012). Organizations of all types were utilizing ICT around the globe, not only for cutting costs and improving efficiency, but also for providing better customer service (Akomea-Bonsu & Sampong, 2012). Makau and Wawire (2013) indicated that SMEs adopt ICT so as to reach new customers and markets and also improve customer services. Additionally, enterprises enhanced their competitiveness, effectiveness and efficiency in handling operations (Tarute & Gatautis, 2014). Further, Appiah and Opare (2015) pointed that perceived benefits such as improved communication within and outside the organization and provision of better access to information influenced enterprisers to adopt. Governments

too, around the world, adopted ICT to provide better services to their citizens (Mokaya, 2012; Wachira, 2014). The adoption of ICT by organizations required an enterprise environment encouraging open competition, trust and security, interoperability, standardization and the availability of finance for ICT (Mohd et al., 2014).

Mohammed et al., (2013) observed that a number of large organizations had spent huge amounts of money on installing computer systems to support processes (Taylor, 2015). Cant et al., (2015) noted that SMEs had invested little in the adoption of these devices (Parker & Castelman, 2007; Shiels & McIvor, 2003; Fink & Disterer, 2006; Taylor, 2015). According to Rodrigues (2003), the service sector utilized ICTs for data processing, transmitting, storing, and retrieving in their transactional and administrative purposes, both locally and also inter-organizationally. SMEs in the entertainment sector could seize the opportunities offered by the ICTs in enhancing competitiveness, productivity and growth in functional areas.

2.6 Influence of entrepreneurial environment on ICT Adoption

ICT adoption depends largely on enterprisers attributes, internal and external characteristics of the enterprise. These factors either inhibit or promote its adoption.

2.6.1 Internal factors

The internal factors such as top management, resources, end users, cost of ICT, perceived benefits, security and organizational factors were examined in the study.

2.6.1.1 Top management

Mohammed and Ismail (2009), while conducting a study on intranet in enterprises, alluded that top management support of information systems was the degree to which top

management understands the importance of the IS function and the extent of involvement the activities. Ghobakhloo and Hong (2012) supported this view by arguing that Chief Executive Officers (CEOs) of enterprises should actively participate in the acquisition of ICTs by evaluating their accruing benefits and risks involved. Equally, Yahya and Elbeltagi, (2013) opined that CEOs or owner-managers had the power to decide on the type or nature of ICT to be adopted, hence must be involved in the process. This view was earlier supported by researchers in the similar intranet context, who had consistently found that top management support was a strong determinant of intranet implementation success (Al-Garbi & Al-Turki, 2001; Tang, 2000; Bajwa & Ross, 2002).

Ghobakhloo et al., (2011) pointed out that SMEs generally have a simple and highly centralized organizational structure, where the owner doubles up as the CEO (Ghobakhloo et al., 2012). Olise et al., (2014) in a study done among SMEs in Nigeria found that there was significant relationship between the owner-manager and SME performance as occasioned by ICT adoption. According to Sarosa and Zowghi (2003), the owner is the major investor who provides SMEs with capital. This therefore meant that in SMEs, ICT adoption process was directly affected by top management where all decisions from daily functions to future investments were made by them (Bruque & Moyano, 2007; Nguyen, 2009; Wachira, 2014;).

Mohd et al., (2014) revealed that CEOs were central in decision making on matters pertaining ICT adoption (Fuller-Love, 2006; Smith, 2007). Mpofu and Gono (2016) while exploring ICT adoption by SMEs in Southern Africa, found that the level of owner-managers' assertiveness on enterprise decisions was critical in the adoption of ICTs. This

position was earlier asserted by Harshana et al., (2015) on the role of owner-managers as decision makers on matters concerning ICT (Bruque and Moyano, 2007; Nguyen, 2009).

Carson and Gilmore (2000) pointed out that the decisions made were mainly based on the CEO's experiential knowledge often derived from combination of existing competencies of knowledge, personal experience, judgment, and their communication skills. Yahya and Elbeltagi (2013) concurred while conducting a study in United Arab Emirates on the mediating role of owner-manager decision to adopt ICT. Ntwoku (2011) while carrying out a research among Cameroonian SMEs found that the level of education and ICT training of SME owners led to better adoption. Kathryn (2013) later in a study targeting students found that students with strong basic ICT skills exhibited relatively high intention to adopt.

Gusaptono and Muafi (2012) while undertaking a study among Indonesian SMEs on e-readiness found out a positive influence of technology competence on ICT adoption and usage (Thong & Yap, 1995; Thong, 1999). This was reinforced by Wanjau et al., (2012) who confirmed that positive attitude of top management brought about the relative success of ICT adoption in SMEs. Consequently, Mohammed et al., (2013) argued that if the CEO perceived that the benefits of ICT adoption exceeded its associated risks, then the business was more likely to adopt ICT (Thong and Yap, 1995; Kutlu & Ozturan, 2008; Nguyen, 2009).

According to Masrek, Karim and Hussein (2007), high degree of managerial support for the ICT implementation would not only demonstrate commitment and continuous support for the project but also provide conducive environment for implementation by providing

necessary resources such as time, space, equipment and people. Mohammed et al., (2013) noted that manager's willingness was significant factor on ICT adoption (Tarute & Gatautis, 2014). Nduati et al., (2015) indicated lack of administrative support was an impediment to its adoption in SMEs in Kenya.

Additionally, Mpofu & Gono (2016) and Nduati et al., (2015) provided evidence that top management support and its commitment towards ICT adoption was one of the reasons for higher levels of success and satisfaction with adoption and use in SMEs (Fink, 1998; Ghobakhloo & Zulkifli et al., 2010; Premkumar, 2003; Thong, 2001).

Further, Ghobakhloo et al., (2011) using resource-based theory, demonstrated that management support towards ICT adoption significantly helps in the ICT adoption success within SMEs (Caldeira & Ward (2003). Akanbi (2016) cited lack of top management support as an inhibitor as well as knowledge and experience of ICT (Drew, 2003; Fink, 1998; Ghobakhloo et al., 2011a). A study by Thong and Yaps (1995) confirmed SMEs with CEOs who were more knowledgeable about ICT were more likely to adopt. Akanbi (2015) and Ladokun et al., (2013) posited that greater knowledge of CEOs would reduce the degree of uncertainty on the potential ICT which would result in lower risk of ICT adoption (Thong, 1999; Reynolds, 1994; Manuere et al., 2012; Yahya et al., 2013).

Additionally, SMEs whose CEOs have higher levels of computing skills are more satisfied with the implemented ICT rather than those having inferior skills (Palvia & Palvia, 1999). Consistently, findings of a study done by Mokaya, (2012) and Adebayo et al., (2013) among SMEs in Thika, Kenya and Oyo state in Nigeria respectively

highlighted ICT skills and training as significant drivers for its adoption (Fink, 1998; Lybaert, 1998).

Ghobakhloo et al., (2011a, 2011, 2012) argued that the CEO's personal innovativeness in IT (PIIT) influenced ICT adoption. This factor has been revealed to be a reliable predictor of users' attitude about the simplicity of use and effectiveness of new technologies (Nov and Ye, 2008; Adebayo et al., 2013). Further, a study by Thatcher and Perrewe (2002) found that highly innovative individuals, with higher levels of PIIT, were more likely to look for stimulating experiences and had more confidence in their competence to use ICT. Therefore, CEOs' desire of being more innovative would fast track the process of ICT adoption (Thong & Yap, 1995). In SMEs, where users of a new information system were both employees and owner-managers, innovative owner-managers would have a better attitude toward ICT adoption.

Owner-manager's perception of and attitude toward ICT, support and commitment, ICT knowledge and experiences, personal innovativeness, perceived behavioral control over IT, desire for growth, and familiarity with administration directly impacted the process of ICT adoption in SMEs (Olise et al., 2014; Onwuka & Ebele, 2015).

2.6.1.2 Resources

Akomea-Bonsu and Sampong (2012) argued that SMEs were known to be operating with depleted and insufficient resources, especially at their nascent stages compared to big organizations (Igbaria & Tan, 1997; Nieto & Fernández, 2005). According to Yahya et al., (2013) and Olise et al., (2014) these resources included but not restricted to financial resources, technical and managerial resources but also information resources accessibility, internal and external expertise, market accessibility, and in-house ICT knowledge and experience (Southern and Tilley, 2000; Thong, 2001; Caldeira and Ward, 2003; Nguyen, 2009).

Noor et al., (2014) indicated that SMEs which had adequate financial resources adopt ICTs because they were in a position to meet huge expenses involved in its adoption (Moriones & Lopez, 2007; Mohamad & Ismail, 2009). Rangone (1999) argued, based on resource-based theory, financial resources were critical resources for SMEs success. This view was later supported by Ghobakhloo et al., (2011) who argued that limited financial resources compelled SMEs to be cautious about their investment and capital spending (Akanbi, 2015). Ongori and Atambo (2016) argued that an imprecise ICT investment decision could impose drastic financial consequences for SMEs and in extreme circumstances could lead to an insolvency and economic failure (Sarosa & Zowghi, 2003; Agarwal & Prasad, 2000; Love & Irani, 2005).

According to Ongori and Atambo (2016) financial resources were prerequisite for acquiring initial ICT infrastructure and associated indirect expenses. Wachira (2014) revealed that financial restriction of SMEs regarding ICT adoption was attributable to the

high cost of ICT tools and infrastructure (Chau, 1995; Premkumar, 2003; Noor et al., 2014). Mohd et al., (2014) argued that SME owner-managers could consider elements of ICT costs closely during ICT adoption process within the sector (Fink, 1998). In a study by Walczuch et al., (2000) on internet adoption barriers for SMEs in the Netherlands, it revealed that the high costs were the key reason for those SMEs not having internet access as well as operating own Websites.

Adebayo et al., (2013) opined that the high start-up cost of ICT and the very expensive software or ready-to-use online package, inhibited SMEs from reaping short-term and medium term benefits (Thong, 2001; Ghobakhloo et al., 2011). However, Dibrell et al. (2008) and Wu & Yeniyurt (2006) contradicted, suggesting that despite the price reduction of computer hardware and software accessories in recent years, ICT adoption has not significantly gained prominence. Dibrell et al., (2008) argued that ICT implementation expense was not a major factor hindering its adoption process in SMEs.

Thong (2001) demonstrated that after external expertise, IS investment was the second most significant determinant of IS implementation success in Singaporean small businesses. Premkumar (2003) and Noor et al., (2014) also opined that ICT adoption cost was not a significant in determining adoption within SMEs. This was supported also by Tan et al., (2009) through a study done in Malaysia.

Ghobakhloo et al., (2011) argued that regardless of the plummeting cost of ICT tools and applications, SMEs were generally unable to meet the indirect expenses such as consulting fee, hiring specialists and maintenance (Caldeira & Ward, 2003; Sarosa & Zowghi, 2003). Equally, costs of ICT implementation such as staff training and development expenses, costs of post implementation expenses, cost of management time

and effort, productivity losses, and finally expenses encompassing costs of maintenance and development pose a challenge for SMEs (Love & Irani, 2004; Love et al., 2005; Nguyen, 2009; Ladokun et al.,, 2013).

In line with aforementioned, Ladokun et al., (2013) and Noor et al., (2014) argued that SMEs when compared with large firms lacked in-house expertise, which negatively influenced the process of ICT adoption (Chau, 1995; Fink, 1998). This affirmed earlier findings by Cragg and Zinatelli, (1995) on a longitudinal study over an eight year period. Further, it concurred with earlier findings by Caldeira and Ward (2003) revealing that internal expertise consisting of employees, supervisors, and top management were powerful determinants of ICT adoption (Mohd et al., 2014; Onwuka et al., 2015).

Manuere et al., (2012), while concurring with Caldeira and Ward (2003), further opined that development of internal ICT knowledge and skills was one of the most important ground required for providing superior levels of ICT adoption and satisfaction in SMEs. Consequently, Adebayo et al., (2013) pointed out that lack of ICT knowledge in SMEs could be regarded as a barrier to its adoption since CEOs might be bewildered by swift development of ICT tools and countless variety of choices (Sarosa & Zowghi, 2003; Venkatesh & Brown, 2001; Mpofu & Gono, 2016).

2.6.1.3. End Users

Wachira (2014) revealed that organizations regarded employees as significant assets whose contributions determined the firm's survival and success (Caldeira & Ward, 2003; Melville et al., 2004; Nguyen, 2009) and needed to be developed to contribute to the success of the enterprise (Egbu et al., 2005; Zhou et al., 2009). Fisher and Howell (2004) suggested that characteristics of ICT users including knowledge of ICT, training, attitudes and intention toward ICT, and participation and involvement in adoption process could impact ICT acceptance or its adoption process as well (Caldeira & Ward, 2003; Fink, 1998; Lybaert, 1998; Thong, 2001).

Ghobakhloo et al., (2010) argued that ICT acceptance within users of ICT as a part of enterprise' employee would lend positive impacts on ICT adoption (Sarosa & Zowghi, 2003). Awa et al., (2014) pointed out that the level of ICT adoption and usage by users was manifested through providing ICT course and training while higher knowledge of ICT among users would help them in implementing the new technology (Attewell, 1992; Love et al., 2005).

Equally, Awa et al., (2014) in study carried out in Port Harcourt, Nigeria, found out that individuals having higher level of education were generally more aware of technology benefits and thus possibility of embracing technology (Jones & Hubona, 2005; Ali & Money, 2005; Pavic & Koh, 2007; Noor et al., 2014; Akanbi, 2015).

Akomea-Bonsu and Sampong (2012) undertook a study in Ghana's metropolitan town of Kumasi on ICT impact. They cited lack of internal capabilities and personal reasons as some of the barriers which inhibited ICT adoption (Kleintop & Blau, 1994;; Mbuyisa et al., 2015). In SMEs, Employees' attitude toward ICT adoption might have significant

impact on system acceptance and adoption success hence negative attitude of some users toward IT could negatively affect successful implementation of ICT (Nguyen, 2009).

Gusaptono et al., (2012) in a research focusing on IT adoption process among Indonesian SMEs cited employees' satisfaction with ICT systems as an indicator for adoption (Adam & Burn, 2000; Adamson & Shine, 2003; Yan, 2011). Earlier, Foong (1999) had similar findings while studying on effect of end-user and systems attributes on computer-based IS success in Malaysian SMEs. The findings showed that satisfaction and systems use could be enhanced through a higher level of user involvement in ICT development (Ghobakhloo et al., 2012).

Ongori and Migiro (2011) and Tarute and Gatautis (2014) revealed that the workforce age had contributed to ICTs adoption in SMEs. For instance, youth's flexibility in implementing new ideas, concepts and technologies has accelerated ICTs adoption by SMEs (Awa et al., 2014). In conclusion, CEOs of SMEs were not the only users of ICT who contribute to the success of the implemented ICT. That, employees as the valuable assets of enterprises had an influence over adoption and successful implementation (Mokaya, 2012). Therefore, development of these resources seems to be necessary for the success of the business (Egbu & Hari, 2005; Ghobakhloo et al., 2011).

2.6.1.4 Cost of ICT

Adebayo et al., (2013) in a study targeting SMEs in Oyoo state, Nigeria found cost of purchasing computers as an impediment. Akanbi (2015) while carrying out a study on e-commerce in the same country pointed finances as an impediment (Wanjau et al., 2012). In a study by Walczuch et al., (2000) on internet adoption barriers for SMEs in the

Netherlands, it was realized that the high costs were the key reason for those SMEs not having internet access and hosting their own Website. Ladokun et al., (2013) highlighted high costs of ICT equipment as an inhibitor (Mohd et al., 2014). Chivasa and Hurasha (2016) while conducting a study on Zimbabwean SMEs E-commerce platform, concluded that internet cost and ICT infrastructure were the key impediments of its adoption in the enterprises.

According to Nduati et al., (2015) high cost of networks and internet, cost of computer software and costs of other ICT equipment hindered its adoption among SMEs in Thika town, Kenya. Ongori and Atambo (2016) found that SMEs cannot afford adopting ICT or reap benefits from it through its effective use in short or medium period of time (Ghobakhloo et al., 2011).

Equally, Appiah and Opare (2015) suggested that beside initial costs of software and hardware, costs of ICT implementation should include personnel training and development expenses, as well as costs of post implementation (Nguyen, 2009). Ladokun et al., (2013) in a study that targeted Nigerian SMEs found that the high cost of ICT equipment and maintenance costs posed a threat to most SMEs intending to embrace technology (Wachira, 2014). To compound the problem, Noor et al., (2014) conducted a study in Malaysia targeting SMEs and e-commerce, found that most of them allocated small portion of their elaborate budgets to IT (Wanjau et al., 2012). Indirect costs such as staff training and motivation other than direct costs such hardware, software and installation costs negatively impact the adoption (Adebayo et al., 2014; Ladokun et al., 2013). Akanbi (2015), while undertaking an investigative study on the challenges facing

Nigerian SMEs, found inadequate finances among these enterprises as one of the impediments to its adoption (Wanjau et al., 2012).

Premkumar (2003) however argued that ICT adoption cost was not a significant factor in determining adoption within SMEs. Additionally, Tan et al., (2009) supported and argued that despite ICT costs being one of the major risks perceived by Malaysian SMEs, there were no significant associations between high costs of ICT infrastructure and ICT adoption in these enterprises.

2.6.1.5 Perceived Benefits of ICT adoption

The perceived benefits of ICT adoption were regarded by both owner-manager and employees as key drivers to its adoption (Tarute & Gatautis, 2014). Giovanni and Mano (2003) found that ICT is able to offer enterprise a wide range of possibilities for improving their competitiveness such as provide mechanism for getting access to new market opportunities. Wanjau et al., (2012), in a study that targeted SMEs in Nairobi, Kenya, found that enterprises adopted ICTs in order to have a competitive edge over their rivals, enter new markets and create elaborate supply chains.

According to Olise et al (2014) ICT improved information and knowledge management inside the enterprise and increased the speed and reliability of transactions for both enterprise to enterprise and enterprise to customer transactions. Makau & Wawire (2013) cited reaching of new customers and markets; improving customer services; strengthening relationships with partners and reduction of costs as the main benefits attributable to ICT adoption (Akomea-Bonsu & Sampong, 2012). Appiah and Opare (2015) in a study conducted in Ghana targeting SMEs listed the perceived benefits as

improved access to information; improved ability to compete; improved productivity and improved communication within and without the enterprise.

Onwuka et al., (2015) viewed ICT as a resource required for better communication and integrating enterprise functions (Bhagwat & Sharma, 2007; Taylor, 2015) resulting in improved overall performance of SMEs (Gaith et al., 2009; Cant et al., 2015). ICT brings about reduced documentation errors (Ahuja & Yang, 2009), decline in production and labour costs (Levy et al., 2001; Nguyen, 2009; Akomea-Bonsu & Sampong, 2012; Nduati et al., 2015), enhanced process and organization flexibility (Ghobakhloo et al., 2011). It also leads to discovery of new business opportunities and access to market information (Tan et al., 2009; Wanjau et al., 2012; Nduati et al., 2015), and enhancement of competitive advantage and position of business (Wanjau et al., 2012; Mohammed et al., 2013; Ndekwa, 2014; Nduati et al, 2015; Mpofu & Gono, 2016).

Similar position was reinforced by Riemenschneider and Harrison (2003) on ICT adoption decision in small enterprises, which revealed that anticipated benefits or satisfactory outcomes to organization were significant contributory factor to the decision process of web site adoption. Akomea-Bonsu & Sampong (2012) cited increased knowledge, increased efficiency and overall improvement of performance as key benefits of ICT adoption among SMEs in Kumasi metropolitan town in Ghana.

A study by Tan et al., (2009) on Internet-based ICT adoption within Malaysian SMEs cited spotting of new business opportunities, improved access to market information and intelligence, and reliable and quick business communications as benefits of ICT adoption.. Wanjau et al., (2012) argued that enterprises enabled by ICT could easily

penetrate the global market as well as expanding their local and regional market territories. Makau and Wawire (2013) while studying the relationship between organizational factors and ICT adoption among health-related SMEs observed reduction in workforce, administrative costs and enterprise costs were some of the perceived benefits. Others included improvement in stock control, improvement in information storage and retrieval, and reduction in transaction costs (Appiah and Opare, 2015).

2.6.1.6 Security and ICT Risks

Abdel and Zaied (2012) in a study targeting Egyptian SMEs noted internet security as one of the key barriers to e-commerce adoption. Makau and Wawire (2013) while carrying out study on ICT adoption among health-related SMEs observed that security related fears inhibited it. Additionally, Wachira (2014) indicated that most SMEs see security as an impediment to e-business in SMEs in Kenya and was attributed to ignorance among the enterprisers. Further, Appiah and Opare (2015) observed that security concerns among the enterprisers inhibited ICT adoption in Ghanaian SMEs. Management concerns on whether enterprise information was secure from hacking slowed down the adoption rate. Tan et al., (2009) singled out high costs of ICT tools, expensive software and ICT security concerns as the major risks of ICT adoption perceived by Malaysian SMEs.

These findings were consistent with a study by Love et al., (2005) among Australian SMEs, which found security of the enterprise was significant. Additionally, Tan et al., (2009) pointed out security issues such as sense of insecurity and vulnerability on Internet transactions, as well as the risk of information leak and loss and digital thievery

occasioned by putting information online as some of the main concerns hindering ICT adoption within Malaysian SMEs (Wachira, 2014; Appiah & Opare, 2015). Otengo et al., (2015) noted that SMEs need to do more to avoid compromising their security status in the wake of adopting the ICT tools and applications. Based on these prominent studies, ICT security had become a key concern of SMEs when it came to adopting ICT (Zaied, 2012; Appiah & Opare, 2015).

2.6.1.7 Organizational Characteristics

Gusaptono et al., (2012) in a study on e-readiness among SMEs in Indonesia found significant relationship between organizational characteristics and ICT adoption. According to Awa et al., (2014) organizational resources such as capital, turnover and asset value promote or inhibit adoption of ICT tools (Olise et al., 2014). Other organizational characteristics such as business size, type of industry, information intensity, organization culture and technological maturity (Acar et al., 2005; De Burca et al., 2005; Mokaya, 2012).

Strategically, ICT tools were embraced and utilized within SMEs to achieve pre-determined SME strategy (Mpofu & Gono, 2016). Ghobakhloo et al., (2012) argued that SMEs' investments in ICT were strongly influenced by their strategic focus such as cost reduction versus value added strategies (Levy & Powell, 2001). Makau and Wawire (2013) revealed that organizational readiness was significant factor for ICT adoption. According to Nguyen (2009), many SMEs adopted new ICT to rival other SMEs which had implemented these technologies (Mohd et al., 2014; Mpofu & Gono, 2016). Further

argued that under such circumstances, lack strategy of the purposes of ICT adoption would lead to project failure.

Enterprise size based on turnover and/or number of employees was one of the most important determinants of ICT adoption (Premkumar, 2003; Love et al., 2005). In a study targeting Singaporean SMEs, Thong and Yap (1995) found out that enterprise size was the most important discriminator between adopters and non-adopters of ICT.

Olise et al., (2014) opined that enterprise category, enterprise size was the most important determinant to the adoption of ICT (Premkumar & Roberts, 1999). This finding was further reinforced by Awa et al., (2014) in a study targeting SMEs in Port Harcourt, Nigeria that revealed enterprise size as a significant factor, Premkumar (2003) while studying on ICT adoption amongst 207 SMEs found that larger enterprises in the small enterprise category had a higher inclination to adopt ICT than smaller ones (Yeng & Osman, 2015).

In addition, Acar and Koçak (2005), while studying use of ICT by SMEs in Turkish building construction sector found that as enterprise size becomes larger, higher impact of ICTs on construction performance were perceived by building contractors (Akanbi, 2015). This perspective was supported by Ahuja et al., (2009) who confirmed that by defining SMEs size in term of annual turnover, Indian construction SMEs possessing higher turnover had higher ICT adoption (Nduati et al., 2015).

These results were inconsistent with findings of a study by Gilaninia and Mousana (2012) which demonstrated that there was insignificant relationship between sizes of enterprise and ICT use (Gremillion, 1984; Nduati et al., 2015; Schumann, 2015). An empirical study

sampling 130 SMEs in Australia also found no link between enterprise size in terms of turnover and employees and ICT investment levels (Love et al., 2005).

Ghobakhloo et al., (2011a, 2012) cited the type of business and information intensity as determinants of ICT adoption in SMEs. This was earlier reported by Salmeron and Bueno (2006) who hypothesized that SMEs in similar industry tended to implement the same ICT, had similar attitudes towards technological dynamism even had employees having similar attitudes towards using new technology. Jaganathan et al., (2014) in a study targeting rural-based SMEs in Malaysia found that enterprise in information-intensive sectors adopted more ICT than those in less information-intensive environment (Thong & Yap (1995).

Akanbi (2015) while undertaking a study in Nigeria on e-commerce among SMEs found that organizational change and management change had a significant influence on ICT adoption. Bruque and Moyano (2007) had earlier observed that enterprise growth forces SMEs to adopt new and more effective technological solution. Akomea-Bonsu and Sampong (2012) and Appiah and Opare (2015) argued that when enterprises encountered changes such as expansion, down-sizing or relocation, or accessing new markets the intensity of ICT adoption increases (Makau & Wawire, 2013; Tarute & Gatautis, 2014). Owner-managers regard ICTs as essential tools to help manage change (Southern & Tilley, 2000; Taylor, 2015). This proposition was in line with Drew (2003) and Mpofu and Gono (2016) who pointed out that industry changes, trends and opportunities for growth were some of the key driving forces pushing SMEs toward adoption of ICT.

Minguzzi and Passaro (2001) found culture in SMEs as an internal factor that contributes to the rate of ICT adoption. Culture is influenced by owner-managers' attitude, perceptions and characteristics (Mpofu & Gono, 2016). Carmeli and Sternberg (2008) argued that SME managers should consider the influence of supervisors' behaviours towards work and ICT. Gilaninia et al., (2012) suggested that SMEs manifesting adaptable and flexible enterprise culture coupled with higher levels of openness to change had a higher propensity to accept ICT-related changes (Nguyen, 2009).

2.5.2 External Factors

Technology adoption in SME sector was also dependent on the external factors of the enterprise. These factors were beyond the scope or manipulation of the enterprise. In this study, factors such as competitive pressure, IT consultants and vendors and government were considered.

2.6.2.1 External and Competitive Pressure

Mohd et al., (2014) and Appiah and Opare (2015) suggested that enterprises considered pressures to remain competitive, strategies for survival and/or growth, addressing dynamic changes, carrying out promotion as impetus for ICT adoption (Drew, 2003; Mole & Ghobadian, 2004). Wajau et al., (2012) cited market expansion, global penetration and competition as reasons for adopting it (Ongori & Migiro, 2011). Mohammed et al., (2013) while studying e-commerce among Malaysian SMEs noted competition as an important driver for ICT adoption (Nguyen, 2009; Premkumar, 2003).

Taylor (2015) concluded that since small enterprises were susceptible to customer pressure, they adopt ICT in order to meet the customer demands aimed at enhancing

efficiencies of their inter-organizational operations (Levy et al., 2003). Nguyen (2009) in a departure from other scholars opined that firms move toward adoption of ICT for different reasons due to dissimilar functions of enterprises in different environments. Makau and Wawire (2013) argued that enterprises embrace ICT in reaction to an event; in response to the pressures from the internal and external environment and from the pressure from customers demanding improved efficiency (Siggelkow & Levinthal, 2005; Turban et al., 2008).

Appiah and Opare (2015) pointed out that improved customer service and communication require credibility that could be achieved through ICT adoption within SMEs (Mehrtens & Cragg (2001). Credibility could be achieved through fulfilling customers and suppliers‟ pressure by meeting their expectation of receiving better services (Makau & Wawire, 2013; Appiah & Opare, 2015). Akomea-Bonsu & Sampong, 2012 observed that ICT adoption led to improved relationship with customers and suppliers, increased efficiency and improved performance. Dutta and Evrard (1999) in a study on European small enterprises, found that enterprises make use of ICT to deliver a superior level of customer service and better communication with remotely positioned partners/customers (Appiah & Opare, 2015). Alford & Page, (2016) argued that adoption ICT deepened the interactive capacity with clients.

Additionally, Premkumar and Roberts (1999) study on rural small enterprises suggest that external pressure and competitive pressure were important determinants to the adoption of ICTs. Similarly, Cant et al., (2015) in a study done in South Africa found competition and pressure from stakeholders as the drivers for its adoption. A study targeting Portuguese Manufacturing SMEs suggested that clients and suppliers pressure to adopt

ICT is a critical factor influencing the levels of ICT adoption and success (Caldeira & Ward, 2003). These results were consistent with those by De Burca & Fynes (2005) and Mole et al., (2004) who suggested that customers, suppliers and larger enterprise counterpart demands were significant determinant of ICT tools adoption (Ismail & Robyne, 2016).

According to Manuere et al., (2012) in a study targeting Zimbabwean SMEs, found that enterprises adopted owing to the desire and need to stay competitive and innovative as a survival strategy (Ghobakhloo et al., 2011a) Wanjau et al., (2012) while studying SMEs in the tours and travels industry revealed that competition for clients was the driving force behind its adoption. Ghobakhloo et al., (2011) had earlier indicated that the competitive pressure would affect the adoption of new technologies when SMEs perceived these technologies as enhancers of their competitive position. These findings were consistent with Makau and Wawire (2013) and Harshana et al., (2015) who argued that SMEs adopted ICTs in their enterprise because of customer's demand, strategy to increase sales and to improve quality and cut costs (Tarute & Gatautis, 2014; Appiah & Opare, 2015).

Migiro and Ocholla, (2005) found that SMEs in industries with high rate of innovation and intense competition were more likely to perceive ICT tools as a stronger drivers for strategic change than those in other types of industries (Drew, 2003; Gunasekaran & Marri, 2000). Mohd et al., (2014) posited that when competitors adopted certain technology, other SMEs in the sector jumped into the wagon and start embracing the technology (Noor et al., 2014; Taylor, 2015; Nduati et al., 2015).

Appiah and Opare (2015) alluded that SMEs adopted ICT in a bid to gain competitive advantage over rivals through enhanced customer service delivery. Nyakuma et al., (2016) later found that SMEs which perceived their industries as highly competitive were more than six times more likely to adopt ICT solutions.

However, Thong and Yap (1995) departed by suggesting that competitiveness of the environment and information intensity do not directly affect the decision of Singaporean small enterprises to adopt ICT. Small enterprises which have implemented ICT do not do so as a result of their environment (Ibid). Further, Loukis and Sapounas (2009) suggested that since ICT tools were available to competitors as well, they could not offer a sustainable competitive advantage (SCA). But rather, SCA could be achieved through ICT combination with other resources and capabilities of the enterprise.

A study targeting the retail industry by Powell and Dent-Micallef (1997) found that ICT alone cannot offer sustainable performance advantages, but rather competitive advantages could be attained only through using ICT and its integration with the enterprise's infrastructure of human and enterprise complementary resources (Bresnahan & Brynjollfsson, 2002; Chiware & Dick, 2008). Akomea-Bonsu & Sampong (2012) in a study targeting SMEs in Kumasi metropolitan, Ghana found that adopted ICTs should be used strategically for effective competitive advantage. Therefore, if SMEs fail to perceive the relative advantage of ICT in their enterprises compared to their rivals, then they are unlikely to adopt it (Sarosa & Zowghi, 2003; Ndekwa, 2014). Mokaya (2012) opined that entrepreneurs were aware of existence of ICT but don't think necessary for their enterprises.

2.6.2.2 External IT Consultant and Vendors

Ghobakhloo et al., (2011) indicated that SMEs could do with assistance from external ICT expertise, consultants, and vendors with their wealth of technical experiences of the ICT adoption process (Yahya et al., 2013). Noor et al., (2014) argued that large enterprises could afford to employ IT specialists and whereas SMEs hardly attract. Taylor (2015) recommended SMEs to consider support from network partners, ICT consultants and vendors. Despite professional abilities, experts could impact positively on ICT adoption process most SMEs not only fail to access services but also perceive as costly (Nguyen, 2009). Yahya et al., (2013) cited lack of ICT expertise as a barrier to SMEs in the entertainment sector. Additionally, Noor et al., (2014) noted that SMEs avoided hiring IT specialists but instead train staff. This has been exacerbated by lack of internal expertise (Cragg & Zinatelli, 1995; Noor et al., 2014) and thus, should ameliorate by either seeking help externally or developing own internal expertise (DeLone, 1981; Taylor, 2015). SMEs don't trust vendors and external expertise and need government to take up the role of an ICT champion (Ghobakhloo et al., 2012).

Taylor (2015) argued that external consultants and vendors were main sources of external ICT expertise since SMEs hardly hire expensive ICT employees and were unable to attract qualified experts whose focus was career growth (Noor et al., 2014). Similarly, Gable (1991) noted that small enterprises sought external ICT assistance to save costs associated with hiring full-time staff, improve the chances of successful computer usage and handle increasing complexity of managing the ever changing and dynamic enterprise environment (Akanbi, 2015).

Thong (2001) posited that external consultants act as intermediaries to compensate for the absence of ICT knowledge in SMEs. Hollander et al., (2008) and Mbataru et al., (2013) argued that these acquired resources from vendors processed transactions more efficiently, improved response time, reduced transaction costs as well as increase the amount of transactions processed (Ndekwa, 2014).

Vendors focus on larger organizations hence disadvantaging the SMEs who were in dire need of services (Stockdale & Standing, 2004). Cragg and Zinatelli (1995) gave a different view by arguing that most SMEs were averse to seeking external expertise despite lack of internal expertise (Noor et al., 2014). Akomea-Bonsu and Sampong (2012) recommended for affordable professional and consulting fees from the external experts. According to Nduati et al., (2015) cited cost of procuring external services as prohibitive, insufficient internal expertise to aid in making informed choices and lack of time commitment (Wachira, 2014) thus argued that SMEs need to consider the budget availability for hiring consultants (Noor et al., 2014).

Earlier Thong (2001) revealed that small enterprises with higher level of ICT consultant effectiveness had higher level user satisfaction and overall ICT effectiveness. Taylor (2015) affirmed that SMEs that engaged external ICT expertise had higher level of ICT effectiveness. Ghobakhloo et al., (2012) supported by proposing the need for SMEs to seek for external assistance during adoption and implementation (Wachira, 2014). This study examined the readiness of SMEs within the entertainment sector to embrace the services of external suppliers, consultants and vendors. Bars and night clubs need these expertized knowledge to reduce uncertainty for adoption.

2.6.2.3 Government

Gusaptona et al. (2012) found that there was a significant positive relationship between ICT adoption and government support (Ahuja et al., 2009; Southern & Tilley, 2000). Owing to their size and lack of sufficient resources, SMEs were generally more dependent than other larger enterprises on external resources and supports (Sarosa & Zowghi, 2003; Ghobakhloo et al., 2012). According to Fink (1998), government support for facilitating information transfers to SMEs was incrementally increasing. However, a study by Dutta and Evrard (1999) on SMEs in six different European countries indicated that despite governments effort in assisting SMEs adopt ICT through increasing public spending on technology projects, there were adoption barriers in the governmental agencies‟ mechanisms (Mokaya, 2012; Wachira, 2014; Appiah & Opare, 2015). This was attributed to disconnect between what was really required for SMEs and what was provided by the government (Sarosa & Zowghi, 2003; Akomea-Bonsu & Sampong, 2012; Mokaya, 2012; Yahya et al., 2013).

Fink (1998) found that government grants was not a significant factor supporting ICT adoption among Australian SMEs (Yahya et al., 2013). Thus, despite increased government support towards ICT adoption, little impact has been felt (Nduati et al., 2015; Mpofu & Gono, 2016). On the contrary, Fathian and Akhavan (2008), while carrying out a study among Iranian SMEs, pointed significant improvement in ICT adoption and e-readiness after government support (Adebayo et al., 2013).

Additionally, Tan et al., (2009), found out that Malaysian SMEs disagreed with the view that cost was a significant determinant of ICT adoption. They argued that government has

been active in providing financial and other incentives such as training to these SMEs yet little adoption was witnessed (Mpofu & Gono, 2016; Nyakuma et al., 2016). Alam and Noor (2009) supported that view by demonstrating that ICT adoption in Malaysian SMEs was not directly affected by perceived ICT costs. The government of Kenya has legislated policies aimed at effecting ICT adoption among SMES. National ICT policy 2006 and Kenya Vision 2030 espoused these endeavours. However, the level of adoption in the entertainment sector remained low.

2.7 Benefits of ICT Adoption in SMEs

ICT applications improve information and knowledge management (Makau & Wawire, 2013) inside the enterprise and could reduce transaction costs (Adebayo et al., 2013) and increase the speed and reliability of transactions for both business-to-business (B2B) and business-to-consumer (B2C) transactions (Mingle & Dzandu, 2013; Tarute & Gatautis, 2014; Appiah & Opare, 2015; Mpofu & Gono, 2016).

In addition, they were effective tools for improving external communications and quality of services for established and new customers (Wanjau et al., 2012; Mohammed et al., 2013; Jaganathan et al., 2014). Taylor (2015) reiterated that ICT had changed and would further transform not only the nature of work and communications, but also the ways of the organization of enterprises, and business activity (Mingle & Dzandu, 2013; Appiah & Opare, 2015; Cant et al., 2015; Mpofu & Gono, 2016).

ICTs has also brought improved security and monitoring in the way information was handled and communicated within and between organizations (Otengo et al., 2015). This had minimized if not eliminated the risk of fraud and irregularities in systems within and

outside organizations. Mingle and Dzandu (2013) asserted that in the developed world, in addition to relaying information, ICTs were used to promote better health behavior, to improve decision making, to promote information exchange among peers, for self-care and professional support, and to enhance the effectiveness of health institutions (Makau & Wawire, 2013).

Innovations such as electronic medical records, hospital information systems, Intranets, public networks, health decision-support and expert systems, telemedicine, and community health information systems had altered cost, quality, accessibility and delivery of health care (Mingle & Dzandu, 2013; Makau & Wawire, 2013). All dimensions of health operations were supported by ICT applications (ECA, 2001).

Birgul et al., (2008) argued that technology was an important factor for the competitiveness of SMEs in several aspects. They included product and production techniques, management methods, enterprise organization and staff training. Benefits could take a number of forms, such as efficiency gains, increased management effectiveness and improved business performance (Fink, 1998; Wanjau et al., 2012; Mohammed et al., 2013; Mohd et al., 2014).

Fuller and Southern (1999) earlier asserted that ICT could be used as a business tool to reduce costs, create stronger links with customers, innovate and facilitate niche marketing (Jaganathan et al., 2014; Ndekwa, 2014; Mbuyisa & Awie, 2015). It has also been found that perceived benefits of internet such as market development, efficiency of sale and promotion, ease of accessibility and cost reduction were significant factors on SMEs

willingness to adopt new technologies such as electronic commerce (Kaynak & Tatoglu, 2005; Ghobakhloo et al., 2012; Ladokun et al., 2013; Wachira, 2014).

According to Chowdhury and Wolf (2003), in the 1990s, many SMEs in East Africa, albeit on a limited scale, embraced ICT. They further argued that increased use of ICT in enterprises led to a substitution of such equipment for other forms of capital and labour and may generate substantial returns for enterprises that invest in ICT (Ndekwa, 2014; Otengo et al., 2015; Ongori & Atambo, 2016). Akomea-Bonsu and Sampong (2012) argued that ICTs were often lauded as the catalyst for development not only for industrial countries but also for developing countries. Thus the question on whether these technologies could help SMEs overcome their disadvantages and contribute to overall growth and export performance becomes important (Chowdhury & Wolf, 2003; Wanjau et al., 2012; Makau & Wawire, 2013; Taylor, 2015). The effective use of ICT remained central in facilitating the change and growth of enterprises (Appiah & Opare, 2015). Many SMEs considered the creative use of ICT as a key enabler to their development (Wanjau et al., 2012).

The contribution of ICT to enterprise development had been recognized and many countries including Kenya has made great efforts in integrating ICT into the enterprise development agenda (Mokaya & Njuguna, 2010; Wanjau et al., 2012; Mokaya, 2012; Makau & Wawire, 2013; Wachira, 2014). And that Kenya has developed and enacted an ICT policy, with the enterprise sector being one of the targeted areas of intervention (Mokaya, 2012; Mbataru et al., 2013). However, as the global economy became increasingly reliant on ICT to receive, process, and send out information, the small enterprises within the developing countries – which form a significant portion of their

developing economies – were yet to reap these benefits evenly (Zaied, 2012; Ghobakhloo et al., 2012; Noor et al., 2014).

While ICT could benefit SME in multiple ways, SMEs within the developing countries had been slow to adopt it as they face major constraints such as poor telecommunication infrastructure (Akanbi, 2015), limited ICT literacy (Ladokun et al., 2013), inability to integrate ICT into enterprise processes, high costs of ICT equipment, incomplete government regulations for e-commerce, and a poor understanding of the dynamics of the knowledge economy (Akomea-Bonsu & Sampong, 2012; Ladokun et al., 2013; Wachira, 2014).

Other studies confirmed that there was a positive effect of ICT on enterprise performance in terms of productivity, profitability, market value and market share (Ashrafi & Murtaza, 2008; Brynjolfsson & Yang, 1996; Love et al., 2004 and Ritches & Brindley, 2005; Akomea-Bonsu & Sampong, 2012; Adebayo et al., 2013; Appiah & Opare, 2015). Their study also revealed that ICT has some effect in terms of intermediate performance measures, such as process efficiency, service quality, cost savings, organization and process flexibility and customer satisfaction (Cant et al., 2015).

ICTs could enhance enterprise performance through indirect cost savings such as labour costs and increased labour productivity, and direct cost reduction of firm's input such as information costs (Chowdhury & Wolf, 2003; Ghobakhloo et al., 2012; Tarute & Gatautis, 2014). Additionally, other than short-run impacts of ICT adoption in the production process, the use of ICTs in the transaction process could foster input and output market expansion (Wanjau et al., 2012; Mbuyisa et al., 2015). In a four-sector

research done by Hirandranath et al., (2008), ICT was seen as helpful in improving the response time to customers, improving productivity and keeping up with their competitors.

Furthermore, in the long run, ICT could have an even bigger impact as it could completely restructure the production process and transaction methods, increase flexibility and improve outputs (Chowdhury & Wolf, 2003; Olise et al., 2014; Awa et al., 2014; Mpofu & Gono, 2016). Further evidence indicated that small firms witness gradual increase in profitability as they adopted and integrated technology, until they reach a maximum, then tends to decline (Tarute & Gatautis, 2014). Arreyembi and Agbor (2008) highlighted that despite recent reports on the success of information-rich economies, many developing countries were not catching up with the trend (Akomea-Bonsu & Sampong, 2012; Mokaya, 2012; Wachira, 2014). It was thus important to analyze the adoption of ICT at the SME level in developing countries. As other players benefited from the ICT tools and applications, bars and night clubs demonstrated low uptake. This meant that the benefits attributable to ICT were yet to filter to the enterpriser.

2.8 Issues arising from Adoption of ICT by SMEs

Mingle and Dzandu (2013) concurred that ICT was expensive and difficult for enterprise to generate the capital needed for its investment, which was often regarded as an add-on cost (Wanjau et al., 2012; Adebayo et al., 2013; Mohd et al., 2014). In their studies, Gusaptono et al., (2012) findings revealed that computer use does not necessarily improve computer literacy skills of staff. This could be attributed to lack of continuous and compulsory training programs or adequate manuals to equip staff with the essential knowledge of computer and ICT skills (Mokaya, 2012; Awa et al., 2014; Mbuyisa et al., 2015), a situation very typical of the enterprises in Accra. They also found out that one of the challenges for efficiency and effectiveness in the performance of tasks and duties was limited number of computers for work (Zaied, 2012; Olise et al., 2014).

Appiah and Opare (2015) argued that ICTs were energy dependent and without adequate and reliable energy supply they could not be used effectively and this could even affect their life span. One of the challenges revealed was frequent power outages that disrupted the flow of enterprises. Mpofu, Milne and Watkins-Mathys (2009) in a South African study, found out that enterprises which frequently experienced power outages had their operations affected (Mingle & Dzandu, 2013). This was also supported by Tarute and Gatautis (2014) who cited power availability as one of the challenges.

Akomea-Bonsu and Sampong (2012) earlier concurred with Mingle and Dzandu (2013) that ICT was expensive and it was difficult for organizations to generate the capital needed for its investment, which was often regarded as an add-on cost. Rodrigues (2003) asserted that the low level of capital investments in the health sector limited the market

for new and expensive technologies. This was complicated by the fast-changing deployment of new technologies and accompanying standards that were constantly raising the level of advancement that could be made to remain current (Mingle & Dzandu, 2013).

Duan et al., (2002) identified lack of ICT skills and knowledge in SMEs as one of the major challenges faced by all European countries, particularly in the UK, Poland and Portugal in their study (Irefin et al., 2012; Akomea-Bonsu & Sampong, 2012; Ghobakhloo et al., 2012; Yahya et al., 2013). In developing countries some of the ICT challenges included legal and regulatory issues (Adebayo et al., 2013), weak ICT strategies (Ladokun et al., 2013), lack of research and development, excessive reliance on foreign technology and ongoing weaknesses in ICT implementation (Dutta & Evrard et al., 2003; Ladokun et al., 2013; Tarute & Gatautis, 2014; Chivasa et al., 2016). Despite all these issues facing SMEs in the entertainment sector, the study focused on ways of alleviating these challenges in bars and night clubs.

2.9 ICT and SME Performance

Akomea-Bonsu and Sampong (2012) pointed out that SMEs in Ghana were aware about the benefits of ICT adoption. Appiah and Opare (2015) in a study on the drivers and challenges of ICT usage among SMEs in Ghana and found that ICTs help enterprises compete, improve productivity, improve communication and customer service.

According to Manochehri and Al-Esmail (2012) ICTs contributions to organizations include but not limited to more visibility to business enterprises; provide more information to small firms; allow enterprises to overcome traditional trade barriers; and facilitate financial transactions. Enterprises that adopt ICT tend to perform better in market and can easily differentiate their products and services (Tarute & Gatautis, 2014). Ollo-Lopez and Aramendia-Muneta (2012) state that ICT adoption seems to have a direct and indirect positive effect on productivity in different sectors.

Consoli (2012) identified four main effects of ICT namely: performance, growth, expansion and new products. These effects had several dimensions, such as efficiency, productivity, product quality, cost reduction and time management (Adebayo et al., 2013; Mohd et al., 2014; Ndekwa, 2014). Technology makes services more easily tradable and increase productivity in manufacturing enterprises (Manochehri et al, 2012).

Makau and Wawire (2013), conducted a study in Kenya and found that SMEs were adopting ICTs to help them reach new customers, improve customer service, strengthen relationships with business partners as well as reduce costs (Ongori & Atambo, 2015). In a similar study in Kenya by Nduati et al., (2015), ICTs helped enterprises create business opportunities and combat pressure from competition. Kilangi (2012) found among SMEs in the tourism sector in Tanzania that ICT adoption enabled the enterprises to gain competitive advantage both locally and globally. Akomea-Bonsu & Sampong (2012) argued that ICT adoption led to improved performance, increased efficiency, reduced costs and improved relationship with customers and suppliers. Wanjau et al., (2012) cited expanded markets whereas Makau and Wawire (2013) pointed at improved informantion

storage and retrieval and customer services. Enterprise competitiveness, effectiveness and growth were attributed to ICT adoption (Tarute & Gatautis, 2014).

Matei and Savulescu (2012) reported that half of the economic growth in the US from 1960-1990 was attributed to ICT investment. Additionally, World Bank study on a sample of 20 000 businesses in 50 developing countries confirmed that enterprises using ICT reported growth in sales, higher productivity and faster employee growth (Tarute & Gatautis, 2014). Matthews (2007) supported and noted some empirical evidence that small firms employing ICT enjoy enhanced profitability and outreach and thus can better position themselves for more enterprise expansion.

Consoli (2012) provided a summary of performance indicators as efficiency, effectiveness and competitiveness, innovative business and intangible benefits. Liang, You and Liu (2010) and Santos and Brito (2012) identified that performance of the enterprise could be categorized into financial performance and strategic performance. These financial and strategic performance could be represented by competitive aspects such profitability, growth, market value, customer satisfaction, employee's satisfaction, environmental performance and social performance (Tarute & Gatautis, 2014).

Alam and Noor (2009) affirmed the positive effect of ICT on firm performance in terms of productivity, profitability, market value and market share. Appiah and Opare (2015) revealed that ICT had some effect in terms intermediate performance measures such as process efficiency, service quality, cost savings, flexibility (organization and process) and also customer satisfaction. However, Consoli (2012) noted that for best performances alignment of ICT investments with internal capabilities and organizational processes was

necessary. Studies had also shown that ICT performance effects varied according to the type of technology being used and its degree of adoption (Liang, You & Liu, 2010; Bayo-Moriones, Billon & Lera-Lopez, 2013).

Tarute and Gatautis (2014) revealed that profitability, growth, market value, social and environmental performance and customer satisfaction were key predictors of enterprise success. Marketing, communication, networking and resource planning were the areas that ICT impacts the most (Wachira, 2014; Taylor, 2015). A study conducted by Tarute and Gatautis (2014) confirmed that ICT has an impact on the improvement of external and internal communication of enterprises and that it plays a major role in innovation performance of SMEs.

2.10 Conceptual Framework

The research framework for this study was developed as a modified hybrid of the three theoretical models aforementioned. Diffusion of innovation theory by Rogers (1985) was partially adopted by the researcher. The perceived attributes of innovation were derived from the diffusion of innovation theory by Rogers (2003). These innovation attributes were relative advantage, observability, trialability, compatibility and complexity.

Technological, organizational and environmental theory by Tornatzky and Fleisher (1990) yielded independent variables on environmental characteristics and enterprise context. The environmental aspects adapted include the competitive environment, legal and regulatory, cost implications, networks and interrelationships with enterprise stakeholders and government support. The enterprise aspects included enterprise resources, human capital, size of the enterprise, operations levels, prior existence of ICT tools and

applications. It also addressed aspects of resource allocation to ICT related investments in the enterprise. Equally important was TOE's contribution on technological indicators such as technological awareness of the market, security of the technology, employee experiences on ICT usage and successful ICT models in the market.

Institutional theory by Scott and Christensen (1995) contributed to the independent variables on enterpriser context. Extant research has shown that enterpriser's characteristics have been instrumental in ICT adoption activities. Such attributes included the enterprisers' risk-bearing nature, innovativeness, pro-activeness, competitive aggressiveness, technical knowledge and networking skills. These attributes pushes the enterpriser to pursue a competitive approach in an attempt to attain isomorphism.

Singuaw et al., (2006) developed an empirically tested model for measuring ICT adoption, which was the dependent variable in this study. It was measured by three elements namely: availability of ICT components, integration of ICT components and the intensity of ICT usage (Prakash, 2007; Sahadev & Islam, 2005). Availability of ICT components pertained physical observation of the technologies used in the enterprise either by individual or joint membership of the employee. Integration of ICT component concerned the use of ICT tools and applications for transactional, administrative, entertainment, knowledge management and communication purposes in the enterprise. Intensity of ICT usage was about the number of times the ICT tool is being employed in the enterprise.

In sum, the independent variables were enterprise context measured by dimensions focusing on enterprise size, resources, management support, human capital, technical

support and enterprise category and information Intensity; environmental context measured by infrastructure, government role, supply chain, competition, perceived trust and external advice; and perceived attributes of innovation measured by relative advantage, compatibility, complexity, Trialability and Observability (Rogers, 1983).

Additionally, the study further employs enterprisers' entrepreneurial attributes such has innovativeness, risk-taking, pro-activeness, networking, opportunity spotting among other dimensions. The model also had a mediator. The mediator was ICT adoption measured by ICT availability, ICT integration and ICT intensity of use (Singuaw et al., (2007).

The final item in the construct was enterprise performance measured by dimensions such as quality, quantity, cost and time. It was hypothesized that the relationship between enterprise Performance and entrepreneurial contexts (external, enterprise and enterpriser) was mediated by ICT adoption in the enterprise. It was anticipated that the modified model would be subjected to rigorous analysis to yield a construct that could be replicated by other scholars in a similar field.

The study drew direct and indirect relationships between the entrepreneurial context and enterprise performance. The direct relationships assessed the effect of external environment, enterprise environment and the enterpriser attributes on enterprise performance in the entertainment sector. Additionally, the indirect relationship between the entrepreneurial context and enterprise performance mediated by ICT adoption was also examined. The later relationship examined the level of relationship among these variables. The three theories underpinning the study were instrumental in the selection of

the constructs used to develop the conceptual framework. These theories were picked because the constructs were discernible within the sector and the study area.

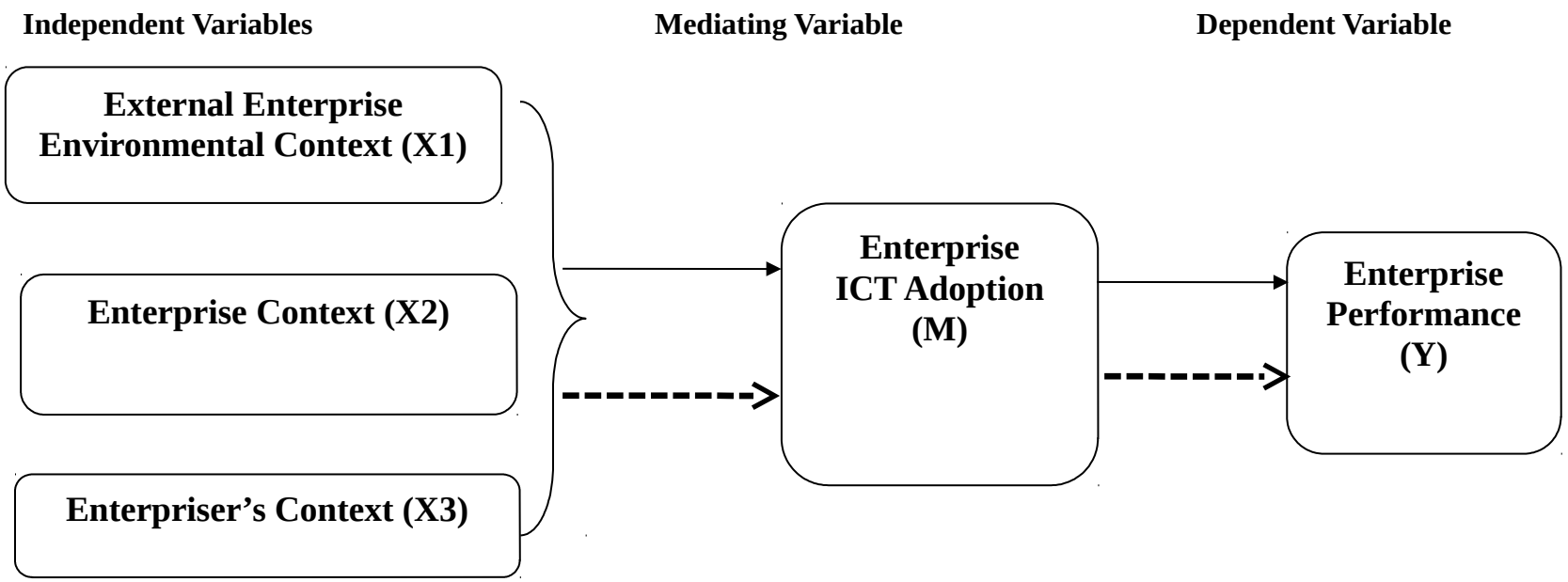


Fig. 2.2 Conceptual Framework

Key

Direct Relationships ($H_{01a}; H_{01b}; H_{01c}; H_{02a}; H_{02b}; H_{03a}; H_{03b}$)

Indirect Relationships ($H_{04}; H_{05}; H_{06}$)

2.11 Chapter Summary and Research Gap

Substantial prominent literature concur that ICT adoption is beneficial to SMEs in both developing and developed economies (Akomea-Bonsu & Sampong, 2012; Makau & Wawire, 2013; Ndekwa, 2014; Appiah & Opare, 2015). Some of the cited benefits include but not limited to improved productivity (Appiah & Opare, 2015), enhanced customer service, improved communication with other enterprise stakeholders and ability to manage information for sound decision making (Mingle & Dzandu, 2013; Ongori & Migiro, 2011; Cant et al., 2016).

However, it emerged that the rate of ICT adoption between large enterprises and small enterprises vary considerably (Nduati et al., 2015). SMEs are slow and they go for basic innovations (Mohammed, 2013) hence need to interrogate the key reason for this scenario based on the study constructs.

Further analysis of the literature review revealed a host of contradictions on several aspects of ICT adoption. First, though high cost of ICT tools among SMEs has been given prominence by majority of authors as the key barrier to ICT innovation (Chau, 1995; Premkumar, 2003; Fink 1998; Adebayo et al., 2013; Mohd et al., 2014; Nduati et al., 2015), others think otherwise. Dibrell et al., (2008) and Wu et al., (2006) contradicted this view by suggesting that despite the price reduction of computer hardware and software accessories in recent years; ICT adoption has not significantly gained prominence. Therefore, they argue that ICT implementation expense is not a major factor hindering ICT adoption process in SMEs. Others who had pointed similar view were Premkumar (2003) and Tan et al., (2001).

Secondly, enterprise size has been related to the rate of ICT adoption among SMEs in many research studies (Fink, 1998; Love et al., 2005; Premkumar, 2003; Premkumar and Roberts, 1999; Thong and Yap, 1995; Noor et al., 2014). They argued that business size is the most important discriminator between adopters and non-adopters (Thong and Yap, 1995; Premkumar, 2003). Conversely, these results are inconsistent with a study by Gremillion (1984) which demonstrated that there is insignificant relationship between sizes of organizations and ICT use. An empirical study sampling 130 SMEs in Australia also found no link between business size in terms of turnover and employees and ICT investment levels (Love et al., 2005).

Thirdly, several empirical studies suggest that for many enterprises, pressures to remain competitive, strategies for survival and/or growth, addressing dynamic changes, carrying out promotion, generally staying competitive and enhancing innovation abilities have forced SMEs to adopt ICT (Drew, 2003; Mole et al., 2004; Nguyen, 2009; Premkumar, 2003; Premkumar and Roberts, 1999; Riemenschneider et al., 2003; Ongori & Migiro, 2011; Appiah & Opare, 2015; Mpofu & Gono, 2016). This view also got support from Levy et al., (2003), Premkumar and Roberts (1999), Nduati et al., (2015). On the contrary, Loukis et al., (2009) suggest that since ICT tools are available to competitors as well, they cannot offer a sustainable competitive advantage (SCA). But rather, strategic competitive advantage could be achieved through ICT combination with other resources and capabilities of the enterprise. This view concurs with an earlier view by Thong and Yap (1995) while studying Singaporean SMEs.

Fourthly, prominent literature shows that there is a significant positive relationship between ICT adoption and government support (Ahuja et al., 2009; Southern and Tilley,

2000; Tan et al., 2009; Yap et al., 1994). According to Fink (1998), government support for facilitating information transfers to SMEs is gradually increasing. From a different viewpoint, Fink (1998) study found that government grants was not a significant factor supporting ICT adoption among Australian SMEs. Thus, despite increased government support towards ICT adoption, little impact has been felt.

These contradictions have generated ideological viewpoints which demand further interrogation. This study therefore aims at not only bridging the above stated gap but also to position the study findings in the existing continuum of ICT adoption knowledge. Finally, the study focused on a modified model that can be used by future researchers to test similar hypotheses.

Table 2.1 Summary and Research Gap

Author (s)	Research Gap
Nduati et al., (2015)	Larger enterprises adopt ICT at a higher rate than small enterprises
Mohammed et al ., (2013)	SMEs are slow in adopting ICT and do go for basic levels of ICTs in their enterprises
Adebayo et al., (2013);	Cost of ICT tools prohibits adoption of ICT in the entertainment sector
Mohd et al., (2014)	Cost was one major impediment for ICT adoption among SMEs
Nduati et al., (2015)	Cost of computer software and other ICT equipment, administrative support, high cost of networks and internet inhibit ICT adoption among SMEs
Dibrell et al., (2008); Wu et al., (2006)	Despite reduction in prices of ICT tools over time, the adoption was still low
Premkumar (2003); Thong & Yap (1995)	There exists a relationship between enterprise size and ICT adoption. Size was the most important discriminator between adopters and non-adopters
Noor et al., (2014)	Larger SMEs were more likely to IT specialists hence embrace ICT tools unlike small SMEs
Love et al., (2005)	No link between enterprise size in terms of turnover and employee and ICT investment levels.
Mpofu & Gono (2016); Appiah & Opare (2015); Ongori & Migiro (2011) Nduati et al.,(2015)	Enterprises adopt ICT in order to remain competitive; as strategy for survival and growth of the enterprise
Loukis et al., (2009) Thong & Yaps (1995)	There was no relationship between ICT adoption and competitiveness. Since tools were available everywhere and were affordable, it couldn't have competitive edge
Ahuja et al., (2009); Southern and Tilley (2000); Tan et al., (2009) Yap et al., (1994)	There was a significant relationship between ICT adoption and government support
Fink (1998)	Government grants was not a significant factor supporting ICT adoption among Australian SMEs. Despite increased government support, entertainment sector.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

This chapter highlighted research strategy used in gathering both primary and secondary data. The chapter addressed pertinent methodology aspects covered under the following subheadings: study area, research design, target population and sampling techniques. It also entailed sample size, research instruments, reliability and validity, data collection methods, data analysis and ethical considerations.

3.2 Study Area

This study was undertaken in Nakuru town, the headquarters of Nakuru County. Nakuru town in the 4th largest town in Kenya after Nairobi, Mombasa and Kisumu cities. It is a transit town linking the whole of western Kenya to the capital city, Nairobi. This town was selected because of its general economic vibrancy in all sectors of the economy and specifically in the entertainment sector. As a transit town, many travellers spend time in the town enroute to their destinations hence the existence of bars and night clubs in the town.

Nakuru, is the capital of Nakuru County in Kenya and former capital of the Rift Valley Province. According to KNBS (2009) it has 307,990 inhabitants, making it the fourth largest urban centre in the country and the largest urban centre in the Kenyan mid-west with Eldoret in Uasin Gishu following closely. Nakuru lies about 1,850 m above sea level. Small Scale Agriculture, manufacturing and tourism are the backbone of the economy of Nakuru. The area surrounding the town is known for its vast agricultural

potential with numerous small farms and also vast agricultural enterprises. The main crops grown around Nakuru town include coffee, wheat, barley, maize, and beans. Nakuru being an agricultural and commercial hub with a large population also has many bars and night clubs within the commercial business district (CBD).

Nakuru is also an educational center. It hosts Egerton University, a large public university, Kabarak University, a large private university and host of satellite campus for several public and private universities. Graduates from these universities and colleges engage in entrepreneurial ventures such as bars and night clubs as a source of livelihood. Nakuru is also a tourist town, home to Lake Nakuru, Naivasha, Elmentaita and Menengai crater. Its proximity to the famous lake Baringo and Lake Bogoria makes the town a key destination for both local and foreign tourists. Nakuru town being an educational and tourist transit town with relatively large population, entertainment spots –bars and night clubs – play a critical role. This economic vibrancy is manifested by many bars and night clubs in the town serving clients across the economic spectrum.

3.3 Research Design

Research design is the overall plan for relating the conceptual research problem to relevant and practicable empirical research (Ghauri & Gronhaug, 2002; 2010). Creswell (2009) further views research design as process involving the overall assumptions of method of data collection and analysis. The choice of research design depends on the objectives of the research in order to be able to answer the research questions (Saunders et al., 2007; Bryman et al., 2007).

This study was informed by a post-positivist paradigm. Its ontological orientation was critical realist with an epistemologically objective stance that was value-free with a deductively derived hypothesis. Post-positivism is the foundation and rationale for most management research (Johnson & Duberley, 2000; Bryman et al., 2007). Hussey and Hussey (1997) highlighted some key features of post-positivism as quantitative, uses large samples hence generalizable and hypothesis oriented.

Deductive logic places emphasis on arguments from the particular to the general (Bryman et al., 2007; Creswell, 2008). The researcher makes observations and finds underlying themes in the data and findings are subjected to more testing for further clarifications of the theme (Saunders et al, 2007). Typically, deductive approach begins with a theory, which is hypothesized by the researcher and later data are collected. Once data are collected, findings determined, hypotheses tested for confirmation or rejection then the theory is revised (Bryman et al., 2007).

The research strategy for the study was cross-sectional survey design. This design entails the collection of data on more than one case and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables, examined to detect patterns of association (Bryman & Bell, 2011). This strategy was used to answer who, what, where, how much and how many questions (Saunders et al., 2007). Survey allows the collection of a large amount of data from a sizeable population in a highly economical way. Additionally, cross-sectional surveys enable possible examining of relationships of patterns from the study (Bryman et al., 2007).

Surveys are linked to deductive logic and are a regular method of collecting data in management research by employing a questionnaire that collects data from a sample and statistically analyses the data (Saunders, Lewis & Thornhill, 2007). Zikmund (2003) argues that surveys have been accepted as a scientific and accurate way of collecting data to quantify gathered information, even though some aspects of the survey might be qualitative. This strategy allows the collection of quantitative data which can be analyzed quantitatively using descriptive and inferential statistics. The same data collected can be used to suggest possible reasons for particular relationships between variables and to produce models of these relationships (Saunders et al., 2009).

3.4 Target Population

The study targeted all registered bars and night club enterprises in Nakuru town. The study jurisdiction was Nakuru town in Nakuru County. The enterprises were stratified into bars which operate from five o'clock to eleven o'clock in the evening and night clubs which were licensed to operate from seven o'clock in the evening to three o'clock in the morning. The list was sourced from County Government of Nakuru as registered in 2015. The target population comprised of 580 bars and night clubs.

3.5 Sampling Techniques

According to Zikmund (2003), a sample taken from the target population is adequate to represent the population if it has the same characteristics of the population and that the findings are used to make conclusions about the population (Field, 2009). The study employed probability and non-probability sampling designs. Probability sampling allows each object or element in the sample frame to have equal chance of being selected whereas non-probability sampling allows the researcher to determine in advance the respondent.

These designs involved identifying a suitable sample frame, deciding on a suitable sample size, selecting the most appropriate sampling technique and checking that the sample was representative of the population (Saunders et al., 2009). The sample frame was obtained from the County Government of Nakuru (CGN). Sample frame is the list of all cases in the population from which the sample is drawn.

Nakuru town was picked as a study area owing to its centrality as a major transit town between the eastern and western parts of Kenya. The town is also close to the capital city, Nairobi, hence has the first mover effects of Nairobi, entertainment included. From the sampled 580 bars and night clubs, the researcher used purposive sampling to pick the owner or the manager in each of the sampled units as the first unit of analysis. The key reason being that ICT- related decisions were often the preserve of either the owner or could be delegated to the manager. The study further employed stratified and systematic sampling techniques. Stratified random sampling was first employed because the study area was segmented into administrative clusters. Also, stratified sampling was applied in

determining the number of units of analysis in category, since the number of bars and night clubs were heterogeneous. Once the two categories have been dichotomized, systematic sampling technique was applied. The i^{th} element was picked until the right sample was achieved. Thereafter, simple random sampling was employed to identify one employee in the selected enterprises.

3.6 Sample Size

Sample size has an effect on how the sample findings accurately represent the population. The larger the sample is, the more likely that the generalizations are an accurate reflection of the population (Saunders, Lewis & Thornhill, 2007). Properly taken samples enable an accurate portrayal of the research population while avoiding the prohibitive costs of surveying everyone (Gill & Johnson, 2002). The researcher employed Slovin's (1960) formula to determine the sample size. The sample size was determined on the basis of 5% margin of error and 95% level of confidence.

The formula is as follows:

$n = N / (1 + N. e^2)$

Where,

n is the desired sample size

N is the finite population

e is the margin error

Based on a target population of 580 enterprises, a sample of 236 enterprises was arrived at. To triangulate the data, the researcher administered 109 questionnaires to employees

in systematically selected bars and night clubs. The findings of drawn from both the owner-managers and the employees would be used to assess the mean difference, hence assess the statistical significance.

Table 3.1 Target Population and Sample size

	Nakuru Town		
Category	**Population**	**Sample**	**Unit of analysis**
Bars	**321**	**131**	
Night Clubs	**259**	**105**	
Nakuru Town	580	236	**Owner-managers**
		109	**Employees**
Total		**345**	**Total respondents**

Source: ***County Government of Nakuru (2015)***

Stratified sampling was used in appropriating sample elements in each category of enterprise. From a total of 236 sampled enterprises, using proportional sampling, 131 and 105 enterprises were picked from bars and night clubs. The researcher further used systematic sampling technique in picking the elements for the study. This approach was appropriate because of the available sampling frame. The researcher picked every 3rd bar from the sample frame until 131 bars were picked and every 3rd night club until 105 bars were picked. All the owner-managers of the enterprises responded to the instrument while

109 employees were sampled using stratified random sampling -61 and 48 from bars and night clubs respectively.

The researcher administered two sets of questionnaires to the owner-managers and the employees. From the sampled enterprises, owner-managers were picked as the first unit of analysis, totaling 236. Further, to triangulate the findings of the owner-managers, the researcher randomly sampled 1(one) employee by systematic sampling technique until 109 respondents were picked. The researcher employed simple random sampling in picking the employees. The total aggregated sample size for the owner-managers and employees was 345.

3.7 Research Instrument

Primary data was collected using research administered questionnaires. Two questionnaires were designed for the owner-managers and the employees. Gill and Johnson (2002) observed that there is no best medium for surveys because each instrument has its own distinct advantages and disadvantages. They further argue that the most important aspect was to generate the instrument that reflects the objectives and hypotheses underpinning the study.

3.7.1 Questionnaire

In this study, a questionnaire is a technique of data collection in which each person is asked to respond to the same set of questions in a predetermined order (De Vaus, 2002). The research administered questionnaires were delivered to each respondent and each respondent was taken through them. This type of questionnaire was appropriate because

the target respondents were literate; the questions were many and intended to elicit independent opinion free of contamination. It was also ideal size of the sample.

The merits of using questionnaire as a data collection tool was its ability to utilize little time, less financial resources and ease of automatic data entry once returned. Some respondents may offer invalid responses if the instrument was not well validated. The questionnaire was made of both closed and open-ended questions. Open-ended questionnaire poses a challenge of transcribing and coding the responses. On the other hand, closed-ended questions restricted the respondent to predetermined set of categorized responses. Thus, they tend to confine the respondent to the choices offered. Each objective was addressed by a set of questions in the instrument. The questionnaires were administered on the owner-manager and enterprise employees. Both responded to all the questions in the instrument.

In order to address all the objectives in the study, three measurement scales were utilized. These scales were nominal, ordinal and interval. Gill and Johnson (2002) opines that nominal scale is applicable when a variable is measured in terms of two or more qualitative categories and these categories have no arithmetic value. The researcher used nominal scale to elicit demographic data from the respondents. The variables include age, gender, occupation, level of education and ICT experience. These data was important for the study since enterprise performance was dependent to some extend on the enterprisers' characteristics.

The study employed 5-scale likert type in handling ordinal scale of measurement. These catered for perceived opinions of the respondents with regard to aspects of the study.

According to Gill and Johnson (2002), Likert scale is advantageous since it does not require the participant to provide a simple and concrete yes or no answer, it does not force the participant to take a stand on a particular topic, but allows them to respond in a degree of agreement; this makes question answering easier on the respondent. Also, the responses presented accommodate neutral or undecided feelings of participants.

These responses were easy to code when accumulating data since a single number represents the participant's response. Likert scaled surveys are also quick, efficient and inexpensive methods for data collection. They are highly versatile and can be sent out through mail, over the internet, or given in person. Nominal, ordinal and interval scale measurements were instrumental in eliciting data for the independent variables. Equally, nominal and ordinal scale measurements were employed in gleaning data for the mediating and the dependent variable.

3.8 Reliability and Validity

Reliability refers to the consistency of a measure of a concept whilst validity refers to the issue of whether or not an indicator (or set of indicators) that is devised to gauge a concept really measures that concept (Bryman & Bell, 2011). Saunders (2009) argued that reliability refers to the extent to which your data collection techniques or analysis procedures would yield consistent findings, and further argued that validity was concerned with whether the findings were really about what they appear to be about. Smithson (2005) viewed reliability as the extent to which a measure was free of random measurement error and that a perfectly reliable measure had no random measurement error.

3.8.1 Reliability of the Research Instruments

Reliability is concerned with the robustness of the questionnaire, and in particular whether or not it would produce consistent findings at different times and under different conditions (Saunders et al., 2002). A pilot test was undertaken in Eldoret town to help determine cronbach's alpha level. Cronbach alpha coefficient is the most common method for testing internal consistency of a scale of reliability (Hair et al., 1998). The Cronbach alpha coefficient ranges from 0 to 1. A level of 0.6 is deemed acceptable. This test ensured attainment of internal consistency across all the questions or a sub-group of questions. For this research, Cronbach alpha coefficient of 0.7 was accepted as the minimum level *(see table 4.33)*.

3.8.2 Validity of Research Instruments

A valid questionnaire would enable accurate data to be collected, and one that is reliable would mean that these data were collected consistently (Saunders et al., 2002). According to Zikmund (2010), validity is the accuracy of a measure or the extent to which a score truthfully represents a concept. Hair et al., (2003) opined that validity is concerned with the test being capable of testing what it was designed for, which is not as simple as it seems. Zikmund and Babin (2010) argued that there were four types of validity namely face validity, content validity, criterion validity and construct validity.

According to Saunders (2009), face validity referred to the agreement that a question, scale, or measure appears logically to reflect accurately what it was intended to measure. Face validity was determined by a review of the items and not through the use of statistical analyses. It was not investigated through formal procedures but later one may develop an informal opinion as to whether or not the test was measuring what it intended

to measure. It was the extent to which the measurement method appears ‘on its face’ to measure the construct of interest.

Content validity referred to an agreement between experts that the scale measures what it was intended to and seems to be a good reflection of the scale (Zikmund & Babin, 2010). Saunders (2009) opined that it referred to the extent to which the measurement device provided adequate coverage of the investigative question. For the purpose of this study, content validity was verified by the researcher by reviewing the literature on the topic, to find similar scales used by the experts in the field of ICT. The researcher also consulted with experts (Parasuraman, Zeithaml & Malhotra, 2005).

According to Cooper and Schindler (2008) criterion validity helps predict something that the researcher is interested in based on a valid measure. The criterion measure should be known to be reliable and valid already (Smithson, 2005). Criterion-related validity can either be predictive or concurrent, depending on how it was measured. Predictive validity is when the measure predicts future result while concurrent validity entails relating a measure to a criterion on which cases were known to differ and that was relevant to the concept in question (Bryman & Bell, 2011). This study employed predictive validity, to help predict future scenarios in the entertainment industry.

Construct validity referred to the analysis of data supporting a part of the study’s hypothesis or the scale answering some of the research questions. Saunders (2009) views construct validity as the extent to which the measurement questions actually measures the presence of those constructs intended to measure. In this research, measurement constructs derived and empirically tested by earlier scholars were replicated. Internal

validity referred to the ability of the questionnaire to measure what it intended to measure. The researcher with the help of experts in the discipline ensured that face, content, predictive and construct validities were achieved.

Using factor analysis, the study was further assessed the validity of the instruments. Factor analysis helped discriminate factors which were not highly loaded to the latent variables and retained the super variables. The retained factors had relatively higher loadings hence true measures of the constructs under review.

3.8.3 Pilot testing

Saunders (2009) termed pilot testing as a small-scale study done to test a research instrument before being administered to the sample, to help minimize the likelihood of respondents having problems in answering the questions. This was done by asking the pilot respondents to read it through and see if there were any ambiguities which the researcher had not noticed. They could also comment on the length, structure and wording of the instrument. Bell (2005) suggested that pilot test help determine how long it takes, whether instructions were clear and general opinion of the respondents.

Piloting was done in bars and night clubs in Eldoret town targeting 30 owner-managers and 30 employees in selected bars and night clubs. The respondents did duly fill the instruments to the satisfaction of the researcher. Thereafter, the instruments were scrutinized by the researcher, with the help of the supervisors, to ensure that they met validity and reliability thresholds. Questions which were deemed ambiguous and unclear were amended and adopted for the study. Other questions were dropped altogether

because they were not relevant to the study context. Thus, the pilot results were used to improve the research instrument as well as develop the super-variables for the study.

3.9 Data Collection Procedures

Before undertaking the study, relevant authorizing documentation from National Commission for Science Technology and Innovation (NACOSTI), Moi University and County government of Nakuru were sought. These documents helped the researcher to authenticate the process hence winning the trust of the respondents.

Research assistants were hired, inducted and briefed on the data collection procedure. For the purposes of eliciting credible and accurate information, the researcher sought the assistance of research assistants who were familiar with the town. Due to the nature of the questionnaire, the respondents took approximately 30 minutes to complete filling the instrument. To increase the response rates, the researcher briefed the research assistants thoroughly to understand the importance of the study. Additionally, the researcher strove to build trust and credibility as well as assuring the respondents about observance of anonymity and confidentiality (Gill & Johnson, 2002).

3.10 Data Analysis

Data analysis generally involves examining, transforming and modeling data with the goal of highlighting useful information that addresses the initial proposition of a study (Yin, 1994). Data analysis has multiple facets and encompasses approaches that help describe facts, detect patterns, develop explanations and test hypothesis. Quantitative and

qualitative data in a raw form, before analyzed convey mute meaning to the users. Therefore, data from the field was compiled, sorted, edited and coded to have the required quality, accuracy and completeness.

Coding is an analytical process through which data are fractured, conceptualized and integrated to form theory (Strauss and Corbin 1998). Data was analyzed both descriptively and inferentially with the aid of Statistical Package for Social Science (SPSS v.22) and AMOS graphics (v.21). Descriptive statistics included mean, median and mode while inferential statistics included independent T-test, correlation analyses, and Structural Equation Modeling (SEM) employing Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). The analyses enabled simplify the findings in terms of frequency tables, figures and statistical models. SEM is more robust multivariate technique than multiple regressions and accepts all measurement scales. It uses bootstrapping confidence interval model that allows resampling. It was ideal for testing more complex path models with different types of variables; independent, dependent and mediating.

3.10.1 Empirical Models

The study employed two analytical models namely factor analysis and structural equation modeling.

3.10.1.1 Factor analysis

Factor analysis is time-tested statistical procedures for investigating relationship between sets of manifest (observed) and latent (unobserved) variables (Kim & Muller, 1978). It essentially helps researcher examine the co-variation among a set of observed variables in

order to gather information on their underlying latent constructs often called factors (An Gie & Pearce, 2013). Factor analysis is a multivariate technique for identifying whether the correlations between a set of observed variables stem from their relationship to one or more latent variables in the data, each of which takes the form of a linear model (Gorsuch, 1983; Field, 2014).

The starting point of FA is a correlation matrix, in which the inter-correlations between the studied variables were presented. The dimensionality of this matrix could be reduced by ‘looking for variables which correlate highly with a group of other variables, but correlate very badly with variables outside of that group” (Field, 2000). Factors with high inter-correlations could well measure one underlying variable, which is called a ‘factor’. The obtained factor creates a new dimension ‘that could be visualized as classification axes along which measurement variables could be plotted (Field, 2000; An Gie & Pearce, 2013).

Factor loadings help determine variables to be retained. Factor loadings are the correlation of the original variable with a factor (Rietveld & Van Hout, 1993), and are useful in determining the ‘substantive importance of a particular variable to a factor (Field, 2000).

There are two basic types of factor analysis namely Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) (Kaplan, 2000; Thompson, 2004). These two factors focuses solely on how, and the extent to which, the observed variables are linked to their underlying latent factors through factor loadings. EFA is ideal in situations where relationships between the manifest and latent variables are unknown. This implies that after the formulation of questionnaire items, an EFA would be undertaken to ascertain the

extent to which the items in the instrument relate to the latent constructs (An Gie & Pearce, 2013; Field, 2014).

CFA is used when the researcher hypothesized relations between the manifest measures and the underlying factors ‘a priori’, based on either knowledge of the theory, empirical research, or both, and then tests this hypothesized structure statistically (Kaplan, 2000; Kline 1994). CFA is at times called measurement model because it focuses on the measured variables.

Exploratory Factor Analysis (EFA) is used to measure things that cannot be directly measured (latent variables). It has several uses such as helping understand the structure of a set of variables, construct a questionnaire and reduce a dataset to a more manageable size, while retaining as much of the original information as possible (An Gie & Pearce, 2013; Field, 2014). It addresses the process of reduction through identifying variables with singularity and multicollinearity characteristics. Singularity refers to a condition where the variables are perfectly correlated whilst multicollinearity is when variables are highly correlated (Field, 2000; Field, 2014).

Steps in Exploratory Factor Analysis

Three assumptions required for factor analysis is that the variables should be measured in an interval scale and that variables should roughly be normally distributed. This enables the generalizing of results beyond the sample collected ((Field, 2000). Also, is the adequate sample size (Moore & McCabe, 2002). For this study, ordinal scale measurement, employing 5-level likert scale was used.

According to Field (2000), much has been written about the necessary sample size for FA leading to many ‘rules-of-thumb’. General guides include, Tabachnick's (2007) rule of thumb that suggests having at least 300 cases for factor analysis. Hair et al., (1995) suggested that sample sizes should be 100 or greater. Comrey and Lee (1973) in their guide to sample sizes: 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1000 or more as excellent. Field (2000) argues that at least 10-15 subjects per variable; Habing (2003) proposes 50 observations and at least 5 times as many observations. The study used 345 samples in the factor analysis.

Prior to the extraction of the factors, several tests should be used to assess the suitability of the respondent data for factor analysis. These tests include Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (Kaiser, 1970; Kaiser et al., 1974) and Bartlett's Test of Sphericity (Bartlett, 1950). The KMO index ranges from 0 to 1, with 0.50 considered suitable for factor analysis (Hair et al., 1995). The sample is adequate if the value of KMO is greater than 0.5 (Field, 2000).

Lastly, a correlation matrix should be used in the EFA process displaying the relationship between individual variables. Tabachnick and Fidell (2007) recommended inspecting the correlation matrix (often termed Factorability of *R*) for correlation coefficients over 0.30. Hair et al. (1995) categorized these loadings using another rule of thumb as ±0.30=minimal, ±0.40=important, and ±.50=practically significant.

Number of factors is deemed similar to the number of positive eigenvalues of the correlation matrix (Thompson, 2004). This is often inadequate since it is possible to obtain eigenvalues that are positive but very close to zero. The rules-of-thumb suggest

that eigenvalues larger than 1 be retained (Kaiser, 1974) or Jolliffes' reduced eigenvalue of 0.7. Other postulated standards include the use of scree plot and keeping all the factors which account for about 70-80% of the variance. Scree plot is a model that requires one to pick factors above the point of inflexion (Cattell, 1966). The challenge with scree plot is when many factors are closely loaded near the point of inflexion.

Orthogonal and oblique rotations are used. Orthogonal is used when there is no correlation between the extracted factors, while oblique rotation concerns those with correlation (Field, 2000; 2014). Orthogonal-varimax rotation first developed by Thompson (2004) is the most common rotational technique used in factor analysis. Under orthogonal, there are three methods of rotation namely: varimax, quartimax and equamax. The most commonly used is varimax, which when applied leads to rotated component that represents the post-rotation loadings of the original variables on the extracted factors (Browne, 2001). In contrast, oblique rotation produce factors that are correlated, which is often seen as producing more accurate results for research involving human behaviours, or when data does not meet priori assumptions (Thompson, 2004).

Interpretation involves examining which variables are attributable to a factor, and giving that factor a name or theme. The labeling of factors is a subjective, theoretical, and inductive process (Pett et al., 2003). Henson and Roberts (2006) noted that the meaningfulness of latent factors is ultimately dependent on researcher definition.

3.10.1.2 Structural Equation Modeling

Structural Equation Modeling (SEM) is a statistical modeling technique, which is widely used in the social and behavioural sciences. It is a multivariate technique, which estimates a series of inter-related dependence relationships simultaneously (Bollen, 1989; Byrne, 2010). SEM is a combination of factor analysis and regression or path analysis. Like multilevel modeling, it advances the discipline further by solving both substantive and statistical problems that the traditional methods cannot handle (Muijs, 2008).

SEM often focuses on theoretical constructs, which are represented by the latent or unobserved factors (Field, 2000). The relationships between the theoretical constructs are represented by regression or path coefficients between the factors. It provides a very general and convenient framework for statistical analysis that includes several commonplace multivariate procedures such as factor analysis, regression analysis, discriminant analysis, and canonical correlation (Field, 2014). Structural equation models are often visualized by a graphical path diagram, showing how the variables are linked.

SEM is attributed to geneticist Sewall Wright (Wright, 1921) who invented path analysis. SEM customarily starts with a path diagram. A path diagram consists of boxes and circles, which are connected by arrows (Byrne, 2001). In Wright's notation, observed (or measured) variables are represented by a rectangle or square box, and latent (or unmeasured) factors by a circle or ellipse. Single headed arrows or 'paths' are used to define causal relationships in the model, with the variable at the tail of the arrow causing the variable at the point. Double headed arrows indicate covariances or correlations, without a causal interpretation. Statistically, the single headed arrows or paths represent regression coefficients, and double-headed arrows covariances (Bollen, 1989).

The hypothesized model can be tested statistically in a simultaneous analysis of the entire system of variables to determine the extent to which it is consistent with the data (Byrne, 2010). If the goodness-of-fit is adequate, the model argues for the plausibility of postulated relations among the variables (Hooper et al., 2008).

With regard to the measurement instrument, the variables are classified as latent and observed variables. Latent variables are not observed directly. They are operationally defined in terms of behavior believed to represent it (Mulaik & Millsap, 2000). The underlying concept behind latent variables is that most of the time in social sciences, it is difficult to measure what ought to be measured (Muijs, 2008). The measured scores (measurements) are termed as observed or manifest variables, and they serve as indicators of the underlying construct which they presume to represent (Hooper, 2008). Hence one latent variable has three or more statements (observed variables) to represent it (Bollen, 1989).

SEM is able to partial out the measurement error to a reasonable extent by looking at the relationship between the manifest variable and the latent variable (Muijs, 2008). This method is called confirmatory factor analysis (CFA). SEM provides two advantages compared to the regression methods (Field, 2014). First, they make it possible to test more complex path models involving a large number of variables and secondly, provide bootstrapped confidence intervals and associated statistical significance tests for indirect paths. Bootstrapped CIs are now regarded as the best method for statistical significance testing for indirect effect, particularly when assumptions of normality are violated (Muijs, 2008).

Exogenous latent variables are synonymous with independent variables; they ‘cause’ fluctuations in the values of other latent variables in the model (An Gie & Pearce, 2013). Endogenous latent variables are synonymous with dependent variables and are influenced by the exogenous variables in the model, either directly or indirectly (Bollen, 1989).

The major assumptions of Structural Equation Modeling (SEM) are that it accepts all four levels of measurement (Nominal, ordinal, interval and ratio scales), can either use a variance-covariance or correlation data matrix derived from a set of observed or measured variables (Byrne, 2010). In addition, SEM is useful when data are normally distributed and therefore free from outliers and skewness (Muijs, 2008).

SEM has two models namely the Measurement model and the structural model. The measurement model, also referred to as CFA, defines relations between the manifest and latent variables (Thompson, 2004). It provides the link between scores on a measuring instrument and the underlying constructs they are intended to measure. CFA does specify how each measure loads on a particular factor (Byrne, 2010). It validates the model but does not explain the relationships between constructs. In other words CFA is a way of testing how well the measured variables represent a particular hypothesized construct.

On the other hand, the structural model defines relations among the unobserved variables (Byrne, 2010). This model specifies the way in which particular latent variables directly or indirectly influence or cause changes in the values of other latent variables in the model. It demonstrates associations between or among constructs in any model (Field, 2014). In SEM, a model is deemed fit if it meets certain statistical thresholds. The

validation of a model is subjected to several indices and tests to reflect the true fit between the hypothesized model and the construct (Hooper, 2008).

The most widely used estimation method is Maximum Likelihood (ML) estimation. The term maximum likelihood describes the statistical principle that underlies the derivation of parameter estimates: the estimates are the ones that maximize the likelihood (the continuous generalization) that the data (the observed co variances) were drawn from this population (Byrne, 2010). If the estimates are assumed to be population values, they maximize the likelihood or probability that the data (the observed covariances) were drawn from the population (the expected covariances). A major requirement for SEM is to check for normality by using maximum likelihood estimation techniques (Byrne, 2010). Then, before testing the research hypotheses, a normality estimation was analyzed to verify whether normality is met for the data collected or not.

Of primary interest in Structural Equation Modeling is the extent to which a hypothesized data “fits”, or in other words, adequately describes the sample data (Mulaik & Millsap, 2000). Ideally evaluation of a model fit should derive from a variety of perspectives and be based on several criteria that assess model fit from a diversity of perspectives. The model fitting process involves determining the goodness-of-fit between the hypothesized model and the sample data (Tabachnik & Fidell, 2007).

3.10.1.3 Indices of fit

The Chi square goodness of fit metric is used to assess the correspondence between theoretical specification and empirical data in a CFA (Tabachnik & Fidell, 2007). By default, the null hypothesis of SEM is that the observed sample and SEM estimated

covariance matrices are equal, meaning perfect fit. The chi-square value increases as differences (residuals) are found when comparing the two matrices (Hooper et al., 2008).

Degrees of freedom represent the amount of mathematical information available to estimate model parameters. The goodness-of-fit index (GFI) was the very first standardized fit index (Tabachnik & Fidell, 2007). It is analogous to a squared multiple correlation (R^2) except that the GFI is a kind of matrix proportion of explained variance. Thus, GFI = 1.0 indicates perfect model fit, GFI > .90 may indicate good fit, and values close to zero indicate very poor fit.

Another index originally associated with AMOS is the Adjusted Goodness-of-Fit Index (AGFI) (Tabachnik & Fidell, 2007). It corrects downward the value of the GFI based on model complexity; that is, there is a greater reduction for more complex models. The GFI and AGFI can be classified as absolute indices. The parsimony goodness-of-fit index (PGFI) (Mulaik & Millsap, 2000) corrects the value of the GFI by a factor that reflects model complexity, but it is sensitive to model size.

The Normed Fit Index (NFI) is one of the original incremental fit indices introduced by Bentler and Bonnet (1980). It is a ratio of the difference in the value for the fitted model and the null model divided by the value for the null model. It ranges from zero to one. A NFI of one indicates perfect fit. The Relative Fit Index (RFI) (Bollen, 1986; Hooper et al., 2008) represents a derivative of the NFI; as with both the NFI and CFI, the RFI coefficient values range from zero to one with values close to one indicating superior fit (Hu & Bentler, 1999; Hooper et al., 2008). The CFI is an incremental fit index that is an improved version of the NFI (Bentler, 1990; Bentler and Bonnet, 1980; Hu and Bentler,

1999). The CFI is Normed so that values range between zero to one, with higher values indicating better fit.

The Tucker Lewis Index (Tucker & Lewis, 1973) is conceptually similar to the NFI, but varies in that it is actually a comparison of the Normed chi-square values for the null and specified model, which to some degree takes into account model complexity. Root Mean Square Error Approximation (RMSEA) was first proposed by Steiger and Lind (1980). It is one of the most widely used measures that attempts to correct for the tendency of the GoF test statistic to reject models with a large sample or a large number of observed variables. Thus it better represents how well a model fits a population, not just the sample used for estimation. Lower RMSEA values indicate better fit (Steiger, 2007).

Table 3.2 Summary of Recommended Indices

Index	**Recommended**
Chi-square ($X^{2)}$	-
Degree of Freedom (Df)	-
X2 significance	P< .05
X2/df	<3.0
Good of Fitness Index (GFI)	>.90
Adjusted Good of Fitness Index (AGFI)	>.90
Normed Fitness Index (NFI)	>.90
Relative Fitness Index (RFI)	>.90
Comparative Fitness Index (CFI)	>.90
Tucker-Lewis Index (TLI)	>.90
Root Mean Square Error Approximation (RMSEA)	<.05
Root Mean Residual (RMR)	<.05

Source: Field Data (2016)

Table 3.3 Data Analyses strategy

	Data Analyses strategy		Indicators
Objectives	**Descriptive statistics**	**Inferential statistics**	
Demographics	Means Frequencies		
Descriptive Analysis	Means Frequencies	Independent T-Test	F-Test Levene's Test Cohen's d
1 – 6	Data Reduction	Exploratory Factor Analysis	Measurement model Cronbach Alpha Factor loadings Correlations
1-6	Structural Equation Modeling (AMOS)	Confirmatory Factor Analysis	Structural Model Model Fit Indices Standardized Regression weights

Source: Researcher (2016)

3.11 Ethical Consideration

According to Walliman (2011) there are two aspects that concern ethics in research. First, is the individual value of the researcher relating to honesty, frankness and personal integrity and secondly, the researcher's treatment of other people involved in the research, relating to informed consent, confidentiality, anonymity and courtesy.

Honesty is essential, not only to enable straightforward, above-board communication, but to engender a level of trust and credibility in the outcomes of the research (Walliman, 2011). The worst offence against honesty in this respect is called plagiarism. Using the thoughts, ideas and works of others without acknowledging their source, even if paraphrased into one's own words, is unethical. The researcher acknowledged the sources used in the study.

With regard to data and interpretation, the researcher ought to maintain impartiality in order to grant the findings some latitude of integrity. Silently rejecting or ignoring evidence which happens to be contrary to one's beliefs, or being too selective in the data used and in presenting the results of the analysis constitutes a breach of integrity (Walliman, 2011). The researcher sought permission from the Moi University, Research regulator (NACOSTI) and County government of Nakuru. The researcher further used the data collected to analyze and report the findings.

Saunders (2009) points out general ethical issues as privacy, voluntary participation, informed consent, confidentiality and anonymity. He further identifies the reactions of participants to the way in which the researcher seeks to collect data, including but not limited to embarrassment, stress, pain and harm. Consequently, the researcher sought

informed consent from the respondents before undertaking the study. This helped in winning trust hence eliciting credible and reliable responses.

The respondents' respect for anonymity and confidentiality was adhered to by ensuring that the research instruments did not bear any names of the respondents. Physical and psychological dangers were avoided in the course of the study. The researcher also adhered to the principle of privacy. The units of analyses were granted absolute privacy in order to continue executing their duties.

CHAPTER 4

DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Overview

This chapter presented, analyzed, interpreted and discussed data collected from the study. The chapter contained data editing, coding and screening; demographic findings and descriptive analysis. It also has exploratory factor analysis strategy, confirmatory factor analysis strategy and hypothesis testing.

4.2 Data Editing, Coding and Screening

Data editing was done to ensure that it was complete and consistent. Editing was considered part of the data processing and analysis stage (Zikmund, 2003). Following the recommendation of Sekaran (2000), this thesis included all respondents in the analysis who completed responding to at least 75% of questionnaire content, whilst those with more than 25% unanswered questions were excluded (in total, 7 questionnaires were excluded). Any missing data had been considered as missing values (Sekaran, 2000) and treatment of missing data was discussed in the following section.

Coding was used to assign numbers to each answer (Malhotra et al., 1996) to ease transfer of data to the analysis program. DeVaus (2002) opined that such procedures could be undertaken either before the questionnaire was answered (pre-coding), or after (post-coding). In this case, a pre-coding procedure was used. Data editing procedures were undertaken after data were entered into the data file to detect any errors in data entry.

Data screening was useful in making sure that the data collected were credible and would not lead to misleading results. Since the instrument was research administered, few cases of missing data and non-response bias were encountered. It was uncommon to obtain data sets without some missing data (Hair et al., 2003). Two ways have been recommended by Tabachnick and Fidell (2001) to evaluate the degree to which there were missing data.

The first was to evaluate the amount of missing data and the second was to evaluate the pattern of missing data. Checking the pattern of missing data has an advantage in determining whether or not missing data occur randomly or relate to specific items. In effect, the pattern of missing data was randomly distributed among the questionnaires. If it was not, then the missing data would lead to biased estimates of results (Tabachnick & Fidell, 2001). Further (ibid) argued that it was acceptable if the percentage of missing data was less than 5% for all variables and that there was no need to evaluate the pattern of missing data.

The screening of the data in SPSS indicated that there were no variables that had more than 5% of missing data, thus no need to assess the pattern of missing data. To address the missing data, the researcher replaced missing responses with the median for each question. Sekeran (2003) points out median to be the most appropriate replacement value when the Likert scale is used. This method was deemed superior compared to listwise deletion that was likely to reduce the overall sample size (Tabachnick & Fidell, 2001). In addition, it was important to ensure that replacing missing values with the median did not significantly alter the distribution of variables (pre- and post-replacement).

With regard to response rate, the strategy employed by the researcher of using research administered mode enhanced response rate. The research assistants allowed the respondents ample time to interrogate the instrument. It emerged that few cases were responded to but had substantial sections omitted (7 cases for the owner-managers and 4 for employees). Those cases were excluded from the dataset.

4.2.1 Response Rate of Questionnaires

Table 4.1 shows the total number of questionnaires distributed to the two categories of respondents and response rates.

Table 4.1 Response Rate of Questionnaires

Category	Total administered	Non-response	Response
Owner managers	236	7	229
Employees	109	4	105
Total	**345**	**11**	**334**

A total of 345 questionnaires were administered to owner-managers (236) and employees (109) of bars and night clubs in the study area. The response was for employees and owner-managers were 96%. It also emerged that 11 cases (4%) of the responses were categorized as non-response hence expunged from the process of data analysis.

4.3 Descriptive statistics

4.3.1 Demographic Profiles

This section highlighted the demographic characteristics of the owner manager and the employees. The characteristics, as indicated in Table 4.2, include age, level of education, marital status, gender and experience in the enterprise. Others include designation, ICT training and level of ICT training proficiency. Demographic factors of the owner-managers and employees were important in this study because ICT adoption was a function of individual traits and competences of the study elements.

Table 4.2 Respondents' Demographic Profile

Code	Factor	Category	Frequency	(%)	Frequency	(%)
A1	Designation	Owner-manager	81	35.4	-	-
		Manager	148	64.6	-	-
		Employee	-	-	105	100
A2	Age	<25 years	4	1.7	2	1.9
		26-35	63	27.5	58	55.2
		36-45	78	34.1	33	31.4
		46-55	57	24.9	4	3.8
		>55	27	11.8	8	7.6
A3	Gender	Male	112	48.9	59	56.2
		Female	117	51.1	46	43.8
A4	Education	Primary	5	2.2	4	3.8
		Secondary	53	23.1	38	36.2
		Certificate	24	10.5	32	30.5
		Diploma	79	34.5	25	23.8
		Higher National Diploma	45	19.7	5	4.8
		Bachelors	23	10.0	1	1.0
A5	Marital	Single	58	25.3	26	24.8
		Married	145	63.3	74	70.5
		Divorced	16	7.0	2	1.9
		Widow	6	2.6	2	1.9
		Widower	4	1.7	1	1.0
A6	Experience	<2 years	11	4.8	2	1.9

		3-5 years	48	21.0	5	4.8
		6-10 years	93	40.6	62	59.0
		11-15 years	48	21.0	10	9.5
		>15 years	29	12.7	26	24.8
A7	ICT training	Yes	151	65.9	33	31.4
		No	78	34.1	72	68.6
A8	Competency	Not proficient	78	34.1	72	68.6
		Somewhat	4	1.7	3	2.9
		Fairly	44	19.2	6	5.7
		Proficient	55	24.0	9	8.6
		Very	22	9.6	10	9.5
		Extremely	26	11.4	5	4.8

Source: Researcher (2016)

From the study findings, the majority (64.6%, 148) of the 229 owner-managers were managers while the rest (35.4%) were the owners of the enterprises. The other unit of analysis in the study was a set of 105 employees working in bars and night clubs picked as elements. Therefore a total of 334 respondents participated in the study. It also emerged that 34.1% of the owner-managers were aged between 36-45 years compared to 55.2% of employees aged between 26-35 years. This shows that employees mean age is lower than that of owner-managers.

With regard to gender, owner-managers showed some parity with males accounting for 48.9% while the rest 51.1% were female. Among the employees, 56.2% were male while 43.8% were females. This scenario could be attributed to the straining nature of work in bars and night clubs that restricted female employees from engaging in.

In terms of literacy levels, a paltry 2.2% of owner-managers and 3.8% of employees had attained primary level of education as the highest. Most (34.5%) of the owner-managers had diploma level of education compared to 36.2% of employees who had secondary school qualification. This shows that fewer employees had advanced their education

compared to the owner managers. On marital status, both owner-managers and the employees were evenly represented with 63.3% and 70.5% married respectively. This was closely followed by 25.3% and 24.8% of owner-managers and employees being single respectively. Divorced category returned very low percentages, 7% and 1.9% for owner-managers and employees respectively.

It also emerged from the study that 40.6% of owner-managers and 59% of the employees had been in this kind of trade for between 6-10 years. Only 4.8% of owner-managers and 1.9% of employees had less than 2 years' experience in the trade. This shows that majority of the enterprises had surmounted challenges facing start-ups at the initial stages.

Since the study was examining ICT adoption, it was necessary to probe on ICT literacy of owner-managers and the employees. Findings indicated that 65.9% of the owner managers and 31.4% of the employees had been trained on computer proficiency. This shows a huge disparity between the two groups of respondents. Ironically, only 11.4% of the owner-managers proclaimed to be extremely proficient in the use of ICT tools and applications. This was even lower for the employees (4.8%) who claimed to be extremely proficient. This scenario has a direct bearing on the adoption of ICT in the enterprises.

4.3.2 Enterprise Profiles

This section highlighted the main characteristics of the enterprises in the study area. It entailed enterprise type, enterprise form, entrepreneurial status of the owner-manager and the number of employee *(see table 4.3)*.

Table 4.3 Enterprise Profile by Category and Frequency

Code	Factor	Category	Frequency (n) Owner	Percent (%)	Freq (n) Employee	Percent (%)
A9	Enterprise type	Bar	127	55.5	45	42.9
		Night club	102	44.5	60	57.1
A10	Enterprise form	Sole proprietorship	185	80.8	92	87.6
		Partnership	43	18.8	13	12.4
		Private limited	1	0.4		
A11	Entrepreneurial status	Part-time	25	10.9	6	5.7
		Full-time	204	89.1	99	94.3
A12	Permanent employees (start)	None	12	5.2		
		1-3	26	11.4		
		4-5	48	21.0		
		6-10	106	46.3		
		>10	37	16.2		
		None	2	0.9		
	Now					
		1-3	16	7.0		
		4-5	59	25.8		
		6-10	108	47.2		
		>10	44	19.2		
	Part time employees (start)	None	156	68.1		
		1-3	29	12.7		
		4-5	21	9.2		
		6-10	17	7.4		
		>10	6	2.6		
		None	129	56.3		
	Now					
		1-3	23	10.0		
		4-5	30	13.1		
		6-10	33	14.4		
		>10	14	6.1		

Source: Researcher (2016)

Study findings pointed out that majority (55.5%) of the owner-managers were drawn from bar enterprises compared to 44.5% from night clubs. On the contrary, 57.1% of

employees were from the night clubs unlike 42.9% drawn from bar enterprises. This finding indicated that more employees were hired in the night clubs than the bars. Of these premise 80.8% were sole proprietorship and the rest being partnership (18.8%) and private limited (0.4%). This shows that most enterprises were still controlled by a solo owner and that benefits attributable to forming partnership and private limited liability are yet to be appreciated.

The findings further indicated that majority (89.1%, 204) of the owner-manager, were full-time entrepreneurs compared to 10.9% who were part-time entrepreneurs. This indicated that most of the entrepreneurs were self-employed in this sector.

With regard to employee status, 46.3% of the enterprises employed between 6-10 permanent employees at the beginning of the venture compared to 47.2% who were currently engaged on permanent basis. This indicates an insignificant change in numbers between the beginning of the enterprise and at the moment. Other statistics indicated that most of these enterprises hardly engage part-time employees. About 68.1% of the enterprises didn’t have a part-time employee during start and 56.3% still maintained that status. This shows that most enterprises don’t face erratic demand for labour hence lacks the need for part-time staff.

4.3.3 Availability of Technology

In order to determine the level of ICT adoption, three dimensions are used. ICT availability, ICT integration and ICT usage (Singuaw, 2006). This section focused on the availability of ICT tools and applications in the enterprises. The respondents were

expected to state the existence and consequently rate the level of use based on the scale provided.

Table 4.4 Availability of ICT Tools and Applications

Availability						
ICT tool	**Never**		**Sometimes**		**Always**	
	F (N)	%	F (N)	%	F (N)	%
Computer	52	22.7	29	12.7	148	64.6
Mobile phone	28	12.2	80	34.9	121	52.8
Credit card	159	69.4	49	21.4	21	9.2
Mobile banking	163	71.2	52	22.7	14	6.1
Mpesa	18	7.9	142	62.0	69	30.1
ETR	99	43.2	63	27.5	67	29.3
Touch screen	155	67.7	32	14.0	42	18.3
DSTV	28	12.2	23	10.0	178	77.7
Television	2	0.9	26	11.4	201	87.8
Music system	5	2.2	20	8.7	204	89.1
Disco lights	29	12.7	24	10.5	176	76.9
Air condition	52	22.7	80	34.9	97	42.4
Employee database	87	38.0	69	30.1	73	31.9
Supplier database	82	35.8	78	34.1	69	30.1
Customer database	162	70.7	45	19.7	22	9.6
CRM	156	68.1	55	24.0	18	7.9
Financial records	81	35.4	77	33.6	71	31.0
Security alarm	124	54.1	41	17.9	64	27.9
CCTV	109	47.6	34	14.8	86	37.6
Fridge	13	5.7	57	24.9	159	69.4
Calculators	16	7.0	63	27.5	150	65.5
Social media	90	39.3	79	34.5	60	26.2
Projector	151	65.9	32	14.0	46	20.1
Website	192	83.8	25	10.9	12	5.2
Internet	166	72.5	43	18.8	20	8.7`
Wifi	150	65.5	41	17.9	38	16.6

Source: Researcher (2016)

Table 4.4 shows the various ICT tools and applications available in the bars and night clubs. The analyses indicate availability and the level of use. Respondents were expected to indicate whether they *never use*, *sometimes* or *always* the tools and applications. The findings indicated that computers (64.6%), mobile phones (52.8%), television (87.8%), music system (89.1%), DSTV (77.7%), disco lights (76.9%) and fridge (69.4%) were tools and applications *always* used in these enterprises (Kiveu, 2013). Others which are *sometimes* used include mpesa (62%), air conditioning (34.9%), social media (34.5%), employee database (30.1%) and calculators (27.5%) among others.

The study further indicated that use of credit card payment (69.4%), customer database (70.7%), website (83.8%) and internet (72.5%) were *never* used. Most of these enterprises reported non-existence of these latter ICT tools and applications. In general, most of these enterprises had adopted basic ICT tools and applications (Zaied, 2012; Mokaya, 2012) as also reported by Kiveu (2013), while conducting similar research among SMEs in Thika.

However, those basic ICT tools show a positive manifestation of migration to digitized format of doing business. It also emerged that most enterprises have focused on ICT tools that help entertain their clientele. This supported the views by Muller (2001) and Gilaninia et al., (2012), that SMEs had high flexibility and adaptability of ICT tools and applications if they were readily available.

Southern and Tilley (2000) identified three categories of small firms with different attitudes to ICT. The first category is *SMEs with low-end ICT use*. This is a scenario where there is no good fit between ICT and the owner-manager’s concept of the business.

The second is SMEs with m*edium-level ICT users*. These SMEs have more expertise, separate IT and communications systems, open access to company data (network and files servers), IT in production, e-mail, and a plan for and delegation of the management and routine upgrading of IT.

Lastly, is h*igh-end ICT users*, with leading-edge and innovative IT use, ICT integrated in the business process, a full digital information and communication system, ICT as a formal responsibility with a dedicated manager. Based on this categorization, it is evident that most enterprises fall within *low-end ICT users*, utilizing basic technologies such as mobile phones, music, television and DSTV among others. This contradicts Palvia and Palvia (1999) arguments that SMEs employ between 30-80% of computing in their enterprises. The range depends on the location, size and nature of the enterprise. While the trend appears to indicate an increased use of IT, this is mainly operational and administrative tasks, rather than for strategic and decision-making purposes (Brock, 2000; Fuller and Southern, 1999; Chen, 1993).

4.4 Descriptive Analysis

To examine whether there exists any differences on the perceptions of owner-managers and employees on entrepreneurial contexts, ICT adoption and enterprise performance, an independent sample t-test was conducted for each of the select factors. Independent sample t-test was used to triangulate the data gleaned from the owner-managers, who were the main decision makers in the acquisition of ICT tools for enterprise efficiency. It was based on these analyzes that owner-manager responses were used in the subsequent inferential analysis due to the rejection of the null hypotheses as indicated in table 4.x

The basic procedure was to derive two different estimates of population variance from the data, then calculate a statistic from the ratio of these two estimates (Between groups and within groups variance). The F-ratio was the ratio of between-groups variance to within-groups variance. A significant F-value ($p<0.05$) indicated that the population means were probably not equal. Levene's test was used to determine if the scores in each group had homogenous variances. Before the independent sample t-test was conducted, underlying assumptions of population normality and homogeneity of variance was ascertained.

4.4.1 Designation and Level of Education

An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers level of education.

Table 4.5 Designation and level of Education

		Education	N	Mean	SD	SEM
	Designation	Owner-manager	229	4.764	1.333	.0880
		Employee	105	3.923	1.016	.0991
		95% CI of the difference			Lower	.57917
					Upper	1.10159
		Cohen's *d*			.711	
Independent sample t-test	**Levene's test**		**t-test for Equality of Means**			
	F	**Sig.**	**T**	**Df**	**Sig.**	**MD**	**SED**
Equal variances assumed	11.400	.001	5.738	332	.000	.8403	.1464
Equal variances not assumed			6.335	259	.000	.8403	.1326

There was a statistically significant difference between the means of employees (n=105, M=3.924, SD=1.016) and owner-managers (n=229, M=4.764, SD=1.333), t (259.3) = 6.335, p<.001. The effect size, d=.711, was large. The researcher rejected the null

hypothesis, thus indicating that there was a significant difference in grand means of the two groups on the level of education. The owner-managers were more educated than the employees.

This concurred with Nurhidayati et al., (2015) who argued that education level of owner-managers was significant in the adoption of ICT tools and applications. A similar study focusing on adoption of e-commerce among SMEs in Kenya affirmed that the level of education had a huge bearing on its adoption (Wanjau et al., 2012).

4.4.2 Designation and External Context

The study analyzed the respondents' perception on external factors influencing ICT adoption. An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers.

Findings indicated that there was a statistically significant difference between the means of employees (n=105, M=3.027, SD=.575) and owner-managers (n=229, M=2.741, SD=.576), t (332) = -4.216, p<.001. The effect size, d=-.497, was medium. The researcher rejected the null hypothesis, thus indicating that there was a significant difference in grand means of the two groups on their perception towards external factors influencing ICT adoption. The employees more than the owner-managers opined that external factors influence ICT adoption in the entertainment sector.

Table 4.6 Designation and External Context

	External context	N	Mean	SD	SEM
Designation	Owner-manager	229	2.740	.5762	.0381

			Employee	105	3.027	.5747	.0561
			95% CI of the difference			Lower	-.4195
						Upper	-.1526
			Cohen's *d*			-0.497	
Independent sample t-test	**Levene's test**		**t-test for Equality of Means**				
	F	**Sig.**	**T**	**Df**	**Sig.**	**MD**	**SED**
Equal variances assumed	.018	.894	-4.216	332	.000	-.28607	.06785
Equal variances not assumed			-4.220	202	.000	-.28607	.06779

This result was consistent with a study by Gusaptono et al., (2012) who pointed out that owner-managers saw external factors (government policies) as an inhibitor to ICT adoption (Ghobakhloo et al., 2012; Adebayo et al., 2013; Tarute & Gatautis, 2014).

4.4.3 Designation and Enterprise Context

The study conducted an analysis on the respondents' perception on enterprise factors influencing ICT adoption. An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers.

Table 4.7 Designation and Enterprise Context

	Enterprise context	**N**	**Mean**	**SD**	**SEM**
Designation	Owner-manager	229	2.9148	.5277	.03487
	Employee	105	3.1476	.5790	.05651
	95% CI of the difference			Lower	-.3589
				Upper	-.1018
	Cohen's *d*			.4202	

Independent sample t-test	**Levene's test**		**t-test for Equality of Means**				

	F	Sig.	T	Df	Sig.	MD	SED
Equal variances assumed	1.081	.299	-3.628	332	.000	-.23277	.06415
Equal variances not assumed			-3.505	185	.001	-.2327	.0664

Findings indicate that there was a statistically significant difference between the means of employees (n=105, M=3.148, SD=.579) and owner-managers (n=229, M=2.915, SD=.527), t (332) = -3.628, p<.001. The effect size, d=.42, was medium. The researcher rejected the null hypothesis, thus indicating that there was a significant difference in grand means of the two groups on their perception towards enterprise factors influencing ICT adoption. The employees more than the owner-managers opined that enterprise factors influence ICT adoption in the entertainment sector.

The findings were in tandem with those by Olise et al., (2014), who found that enterprise factors such as capital base, turnover and asset value influenced the level of ICT adoption. Other enterprise factors influencing ICT adoption were top management (Mohd et al., 2014), skills and training (Adebayo et al., 2012; Onwuka et al., 2015), level of security (Ladokun et al., 2012), finances (Akanbi, 2015) and cost of hardware and software accessories (Nduati et al., 2015; Ongori & Atambo, 2016).

4.4.4 Designation and Enterpriser Context

An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers on their perception about entrepreneurs' profile and ICT adoption.

Table 4.8 Designation and Enterpriser Context

			Enterpriser Context	**N**	**Mean**	**SD**	**SEM**
	Designation		Owner-manager	229	3.155	.4793	.03167
			Employee	105	3.178	.5280	.05153
				95% CI of the difference		Lower	-.1371
						Upper	.0925
				Cohen's *d*			.0442
Independent sample t-test	**Levene's test**		**t-test for Equality of Means**				
	F	**Sig.**	**T**	**df**	**Sig.**	**MD**	**SED**
Equal variances assumed	.703	.402	-.382	332	.703	-.0223	.0584
Equal variances not assumed			-.368	185	.713	-.0223	.0605

Findings indicate that there was no statistically significant difference between the means of employees (n=105, M=3.177, SD=.528) and owner-managers (n=229, M=3.155, SD=.479), t (332) = -.382, p=.703. The effect size, d=.044, was small. The researcher did not reject the null hypothesis, thus indicating that there was no significant difference in grand means of the two groups on their perception towards entrepreneurs' profile influencing ICT adoption. The employees and the owner-managers were of similar view about entrepreneur's profile influencing ICT adoption in the entertainment sector.

These findings were consistent with past studies showing that age (Wanjau et al., 2012), gender (Jaganathan et al., 2014; Awa et al., 2014), level of education (Mokaya, 2012) and experiences with ICT tools and applications (Adebayo et al., 2012; Olise et al., 2014) influences ICT adoption. Others viewed the role of owner-manager in decision making process before the adoption of ICT (Yahya et al., 2013; Mpofu & Gono, 2016).

4.4.5 Designation and ICT availability

An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers on availability of ICT tools and applications.

Table 4.9 Designation and ICT availability

		ICT Availability	N	Mean	SD	SEM
	Designation	Owner-manager	229	1.0568	.3927	.0260
		Employee	105	1.3535	.4008	.0391
		95% CI of the difference			Lower	-.3883
					Upper	-.2051
		Cohen's *d*			-0.747	
Independent sample t-test	**Levene's test**		**t-test for Equality of Means**			
	F	**Sig.**	**T**	**df**	**Sig.**	**MD**	**SED**
Equal variances assumed	.125	.724	-6.370	332	.000	-.2967	.0466
Equal variances not assumed			-6.321	198	.000	-.2967	.0469

There was a statistically significant difference between the means of employees (n=105, M=1.354, SD=.4008) and owner-managers (n=229, M=1.0568, SD=.3927), t (332) = -6.37, p<.001. The effect size, d=.747, was large. The researcher rejected the null hypothesis, thus indicating that there was a significant difference in grand means of the two groups on the availability of ICT tools and applications. The employees rate the availability of ICT tools more positively than the owner-managers in the enterprises.

A study by Hashim (2007) returned similar results. It pointed out that most SMEs rely on the employees to utilize the ICT tools and that majority of the owner-managers had low understanding of ICT tools and applications (Mokaya, 2012; Awa et al., 2014; Onwuka et al., 2015).

4.4.6 Designation and ICT Integration

An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers level of ICT integration.

Table 4.10 Designation and ICT Integration

		ICT Integration	N	Mean	SD	SEM
	Designation	Owner-manager	229	1.805	.9206	.06083
		Employee	105	1.554	.9745	.09510
		95% CI of the difference			Lower	.0336
					Upper	.4684
		Cohen's *d*			**0.2647**	
Independent sample t-test	**Levene's test**		**t-test for Equality of Means**			
	F	**Sig.**	**T**	**df**	**Sig.**	**MD**	**SED**
Equal variance. Assumed	.247	.620	2.271	332	.024	.25100	.1105
Equal variances not assumed			2.223	192	.027	.25100	.1129

There was a statistically significant difference between the means of employees (n=105, M=1.554, SD=.975) and owner-managers (n=229, M=1.805, SD=.921), t (332) = 2.271, p=.024. The effect size, d=.265, was small. The researcher rejected the null hypothesis, thus indicating that there was a significant difference in grand means of the two groups on the level of ICT integration. The owner-managers perception on the level of ICT integration was more favourable than that of the employees. Akomea-Bonsu & Sampong (2012) observed that SME owners viewed ICT integration as a positive influencer to enterprise performance (Jaganathan, 2014).

4.4.7 Designation and ICT Usage

An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers between designation and ICT usage.

Table 4.11 Designation and ICT Usage

		ICT Usage	N	Mean	SD	SEM
	Designation	Owner-manager	229	2.6961	.78970	.05218
		Employee	105	2.4076	.52946	.05167
		95% CI of the difference			Lower	.12190
					Upper	.45501
		Cohen's *d*			**0.4291**	
Independent sample t-test	**Levene's test**		**t-test for Equality of Means**			
	F	**Sig.**	**T**	**Df**	**Sig.**	**MD**	**SED**
Equal variances assumed	20.563	.000	3.407	332	.001	.28845	.08467
Equal variances not assumed			3.928	288	.000	.28845	.07344

There was a statistically significant difference between the means of employees (n=105, M=2.41, SD=.529) and owner-managers (n=229, M=2.696, SD=.789), t (287.8) = 3.928, p=.001. The effect size, d=.429, was medium. The researcher rejected the null hypothesis, thus indicating that there was a significant difference in grand means of the two groups on the level of ICT usage. The owner-managers were more interested in ICT usage than the employees.

Harshana et al., (2015) in a study done in Srilanka on internet adoption also found that owner-managers being the main decision makers in acquisition of ICT tools and

applications. Other studies pointed out that owner-managers paid attention on ICT usage as a tool for competition (Wanjau et al., 2012; Mohammed et al., 2013; Appiah & Opare, 2015).

4.4.8 Designation and Enterprise Performance

An independent sample t-test was conducted to determine if a difference existed between the grand mean scores of employees and owner-managers on their perception about the influence of ICT adoption on enterprise efficiency.

Findings indicate that there was no statistically significant difference between the means of employees (n=105, M=3.148, SD=.449) and owner-managers (n=229, M=3.062, SD=.481), t (332) = -1.551, p=.122. The effect size, d=.185, was small. The researcher did not reject the null hypothesis, thus indicating that there was no significant difference in grand means of the two groups on their perception towards the influence of ICT adoption on enterprise efficiency. The employees and the owner-managers were of similar view with regard to their perception of ICT adoption on enterprise performance.

Table 4.12 Designation and Enterprise Performance

		Enterprise efficiency	N	Mean	SD	SEM
	Designation	Owner-manager	229	3.0618	.48129	.03180
		Employee	105	3.1480	.44910	.04383
		95% CI of the difference			Lower	-.19548
					Upper	.02312
		Cohen's *d*			**-0.1851**	

Independent sample t-test	**Levene's test**		**t-test for Equality of Means**				
	F	**Sig.**	**T**	**Df**	**Sig.**	**MD**	**SED**
Equal variances	.968	.326	-1.551	332	.122	-.08618	.05556

assumed					
Equal variances not assumed	-1.591	215	.113	-.08618	.05415

Other studies have equaled confirmed that ICT adoption positively influences enterprise performances in SMEs (Akomea-Bonsu & Sampong, 2012; Ghobakhloo et al., 2012; Wachira, 2014; Ndekwa, 2014). Despite enormous support for this view, other findings indicated that owners don't adopt ICT (Mokaya, 2012; Makau & Wawire, 2013).

4.4.9 Summary of the Independent Sample T-Test

Summary of the independent sample t-test indicating the F-Value, t value, level of significance and the hypothesis verdict.

Table 4.13 Independent Sample T-Test results

Designation/Dimension	F-Value	T	Sig.	Verdict
Education	11.40	6.335	***	Not Supported
External context	.018	-4.216	***	Not Supported
Enterprise context	1.081	-3.628	***	Not Supported
Enterpriser Context	.703	-.382	***	Not Supported
ICT Availability	.125	-6.370	***	Not Supported
ICT integration	.247	2.271	**	Not Supported
ICT Usage	20.56	3.928	***	Not Supported
Enterprise Performance	.968	-1.551	.122	Supported

*** p<.001; ** p<.05

The findings from the independent sample t-test indicated that there was a significant differences between the means of the owner-managers and the employees, except when the context of enterprise performance (t=-1.551, p>.05) was measured. These findings indicated that the views of the owner-managers and the employees on the constructs were diametrically opposed. This implied that further analyses require the input of the owner-managers only, as they were the sole decision-makers in the enterprise.

4.5 Exploratory Factor Analysis Strategy

The variables subjected to the EFA are the determinants of enterprise performance denoted B1-B36; the variables on ICT adoption denoted C27-C43 and the enterprise performance variables denoted D1-D26. In total, 78 variables out of 104 were included with the remaining 26 variables used in descriptive analysis (C1-C26).

In determining the type of factor extraction, based on the literature concerning whether to adopt factor analysis or principal component analysis, PCA was adopted since the communalities scores were high and that eigenvalues greater than 1 standard was adopted (Kaiser, 1970). The eigenvalue associated with each factor represent the variance explained by that particular factor. Finally, orthogonal (varimax) rotation method was picked because the variables based on theoretical construct view, were uncorrelated. Rotation has the effect of optimizing the factor structure.

Additionally, factors were sorted by size and with a minimum suppression Kaiser Meyer Olkin (KMO) value of 0.5. The KMO value of 0.5 was chosen bearing in mind the sample size. KMO measure of sampling adequacy (Kaiser, 1970) could be calculated for individual and multiple variables and represents the ratio of the squared correlations between variables to the squared partial correlations between variables. It varies between 0 and 1. Value of 0 indicates that the sum of partial correlations was large relative to the sum of correlations, indicating diffusion in the pattern of correlations hence factor analysis was not appropriate.

On the contrary, a value of 1 indicates that pattern of correlations are relatively compact and thus factor analysis should yield distinct and reliable factors. Kaiser (1974) recommends accepting values greater than 0.5 as barely acceptable. If below that value, more samples needed to be collected and included. Another aspect that was checked was the communality output. The communality measures the percentage of variance in a given indicator variable explained by its latent variable (factor) and may be interpreted as the reliability of the indicator. The communality is equal to the squared standardized

regression weight. This was why communalities were sometimes defined as the squared factor loadings, where loadings were defined as the standardized regression weights.

The results of the analysis had a determinant of the R matrix greater than 0.00001 (.000059), meaning that there was no multicollinearity. Also, KMO was 0.852 and Bartlett's test of sphericity, (x^2 *(630)* =4071, p<0.001), a figure deemed great according to Hutcheson and Sofroniou (1999). This showed that there were patterned relationships between the items. Anti-image correlation values ranged between 0.69[a] to 0.926[a] against a set threshold of >.5.

Table 4.14 Rotated Component Matrix

Rotated Component Matrix					
	Component				
	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
C27	.748				
C35	.739				
C34	.723				
C28	.714				
C29	.714				
C33	.710				
C31	.701				
C32	.683				
C36	.683				
C39	.680				
C38	.653				
C30	.637				
C41	.629				
C43	.623				
C37	.535				
B6		.754			
B22		.748			
B5		.650			
B3		.644			
B25		.608			
B13			.702		
B14			.691		
B10			.583		
B9			.548		
B19			.527		
B29				.704	
B30				.697	
B27				.657	
B28				.600	
B32				.599	
B31				.594	
D11					.728
D7					.719
D12					.712
D10					.692
D8					.526
Eigen Values	**23.2%**	**12.4%**	**7.7%**	**5.8%**	**5.3%**

The analysis also confirmed that the residual values were below 0.05, meaning the model is good. Specifically, 34% of the residual values had >0.05, against an upper limit threshold of 50%.

The analysis extracted five factors; three drawn from the entrepreneurial determinants (B1-B36); one each from ICT adoption (C27-C43) and the other enterprise performance (D1-D26) as shown in *table 4.14.* The scree plot confirmed the findings of retaining 5 factors. These five components accounted for 54.4% of the variance ((Factor 1 (23.2%), Factor 2 (12.4%), Factor 3 (7.7%), Factor 4 (5.8%) and Factor 5 (5.3%)).

Out of the 78 variables subjected to the EFA, 36 were retained for factor analysis, while the rest were knocked out due to cross-loadings and multi-collinearity. The factors retained were deemed to represent the constructs under scrutiny. The factor loadings ranged between .526 and .754. Based on these threshold values obtained from the EFA, the data were fit for CFA.

The first unobserved variable named ‘external’ was represented by five variables namely; cost of set-up and maintenance (B6), government legal and regulatory compliance (B5), potential partnerships with suppliers of ICT (B3), availability of technical staff or consultants (B22), support from top management (B25). Variable B22 and B25 were initially designed to capture enterprise context but after EFA, they were deemed to be more inclined to the external environment. These variables in this factor represent aspects beyond the scope and control of both the enterpriser and the enterprise.

The second unobserved variable labeled ‘enterprise context’ had five variables namely; reliability of the ICT (B9), security capabilities (B10), employee/owner ICT competences

(B13), enterprise prior experience with new ICT (B14), potential for re-organization for the enterprise (B19). These variables represented the organizational environment that prevails in the enterprise. These were factors with the control of the organization.

The third unobserved variable labeled ‘enterpriser context’ had six variables namely; my capacity to take calculated risks (B29), my interest in information seeking (B30), my self-esteem (B27), my concern for high quality products/services (B28), my interest for networking with partners (B32), my technical knowledge (B31). These attributes of the enterpriser were not only important on influencing enterprise performance but also the adoption of ICT for enterprise performance.

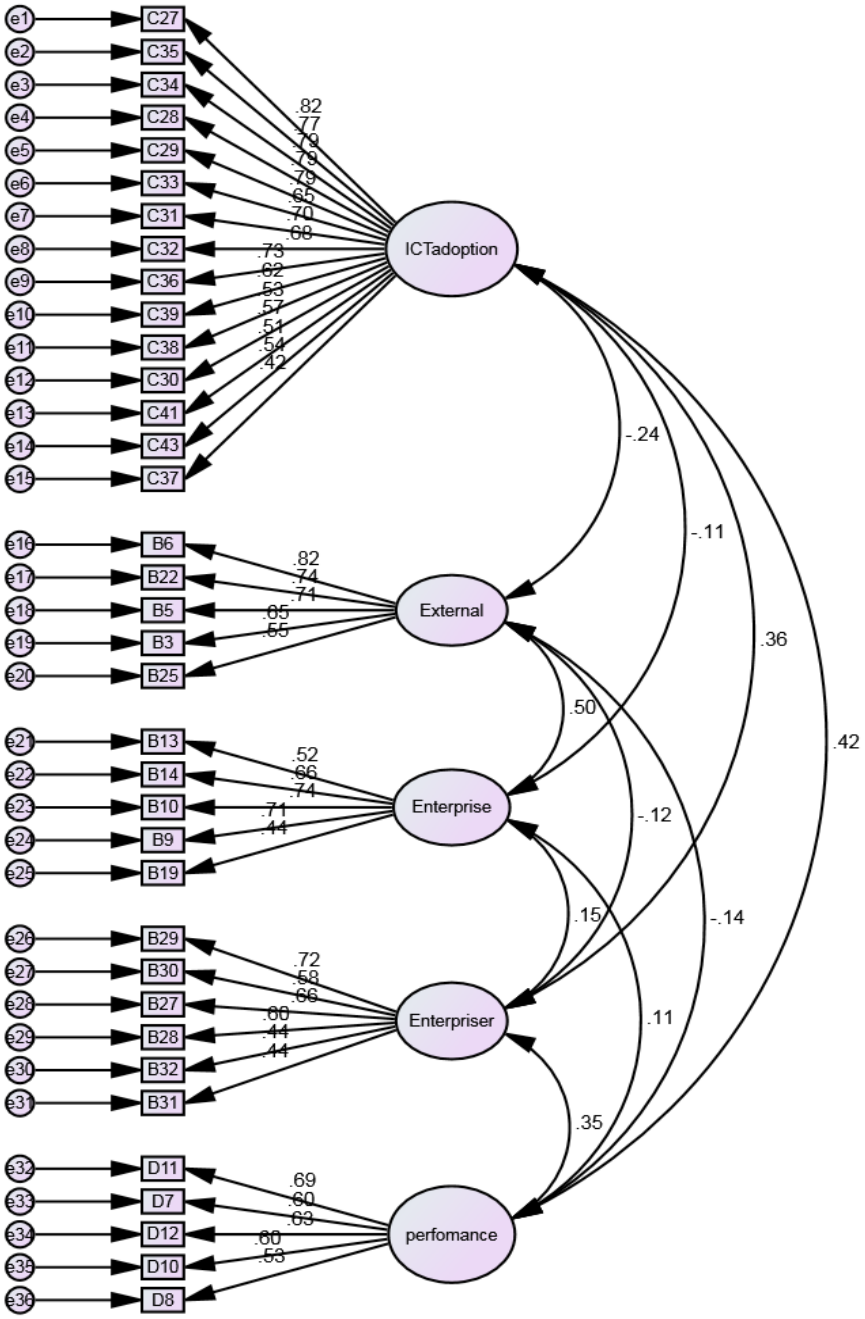
The fourth unobserved variable labeled ‘ICT adoption’ had 15 observed variables namely; integration with the employees (C27), suppliers (C28), government regulatory and support agencies (C29), enterprise partners(C30), enterprise networks(C31) and service providers(C32). Others were usage to transact with customers (C33), communicate with employees (C34), order goods from suppliers (C35), file government returns and taxes (C36), communicate with service providers (C37). Also, they were used to manage employee’s productivity (C38), attract more customers (C39), entertain customers (C41), transact with service providers (C43). ICT adoption was measured by using ICT integration and ICT usage and its availability (Singuaw, 2006). For the purpose of this study, integration and usage were adapted.

The final unobserved variable labeled ‘performance’ had five observed variables named; helps attract new customers to my enterprise (D11), reduces costs associated with defective products (D7), helps increase profits in my enterprise (D12), improves

employee productivity in my enterprise (D10), helps exploit new opportunities for enterprise growth (D8). These variables were used to measure perceived performance of entertainment enterprises.

These variables were extracted through EFA data reduction strategy. The reasons attributed to the superiority of this method were that variables were reduced to a smaller number but still retained the super-variables measuring the same constructs. Some of the indicators knocked were lowly loaded and others were redundant.

The rotated component matrix was then loaded to the Amos graphics platform using pattern matrix model builder. The builder automatically generated the measurement model as shown in figure 4.1.



Final Rotated Matrix for the five latent variables

Fig. 4.1 EFA Measurement Model

4.5.1 Naming of factors

The EFA extracted five factors named external context, enterprise context, enterpriser context, ICT adoption and enterprise performance. The names were picked based on the communality of concepts measured.

4.5.1.1 Renamed Variables, Cronbach alpha and loading

Table 4. 15 Renamed Variables, Cronbach Alpha and Loading Range

Factor	Name	Variables	Cronbach alpha	Loading range
1	External Attributes	5	0.822	.55 to .82
2	Enterprise Attributes	5	0.745	.44 to .76
3	Enterpriser Attributes	6	0.750	.44 to .72
4	ICT adoption	15	0.923	.42 to .82
5	Enterprise performance	5	0.738	.53 to .69
Total		**36**		

After the extraction of the 36 variables representing 5 components (see Figure 4.1), the next step was to name the factors. Loadings in factor 1 were more inclined on externally oriented determinants hence naming them as ‘external context’. The next factor had similar variables relating to internal capabilities of the enterprise with regard to ICT adoption. These variables were named ‘enterprise context’ under factor 2. Factor 3 had variable demonstrating entrepreneurial attributes of the owner-manager. These were labeled ‘enterpriser context’.

The fourth factor were loaded and named under the heading ‘ICT adoption’. Most of the variables were indicative of ICT integration and ICT usage, which are measures of ICT

adoption (Singuaw, 2006). Lastly, the retained factors in the outcome latent variable had some relationship to performance of an enterprise. These variables were then named as ‘enterprise performance’. The five latent variables had reliability levels ranging between 0.738 and 0.923. The Cronbach levels were good for further analysis.

4.5.2 Retained dimensions after EFA

4.5.2.1 External context

Table 4.16 Code, External Context and Loadings

1	External Context	Predictor
Code	**Label**	**Loadings**
B6	Cost of set-up and maintenance	.754
B22	Availability of technical staff & consultants	.748
B5	Government legal and regulatory compliance	.650
B3	Potential partnerships with suppliers	.644
B25	Support to top management	.608

After undertaking the exploratory factor analysis (EFA), 6 factors coded B1, B2, B4, and B7-B11 were dropped due to low loadings or cross loadings. Interestingly, B22 and B25 which were meant to measure enterprise context were included in this factor. These five factors with loadings ranging from .608 to .754 were then subjected to the measurement model and later structural model to determine their coefficients on the latent variable.

4.5.2.2 Enterprise Context

Table 4.17 Enterprise Context and Loadings

2	Enterprise Context	Predictor
Code	**Label**	**Loadings**

B13	Owner/Employee ICT competences	.702
B14	Enterprise prior knowledge with new ICT	.691
B10	Security capabilities of the ICT	.583
B9	Reliability of the ICT	.548
B19	Potential for re-organization of the enterprise	.527

EFA led to the retention of factors coded B13, B14, B10, B9 and B19 with factor loadings .702, .691, .583, .548 and .527 respectively. Factors coded B12, B15-B18 B20-B25 were dropped except B22 and B25 due to low loadings or cross loadings. Factors B22 and B25 were loaded to factor 1. These five factors were then subjected to the measurement model and later structural model to determine their coefficients on the latent variable.

4.5.2.3 Enterpriser Context

Table 4.18 Enterpriser Context and Loadings

3	**Enterpriser Context**	**Predictor**
Code	**Label**	**Loadings**
B29	Capacity to take calculated risks	.704
B30	Information seeking	.697
B27	Innovativeness	.657
B28	Concern for high quality of products	.600

B32	Networking with partners	.599
B31	Technical knowledge and competences	.594

After EFA, factors B27-B32 were retained as key variables associated to the latent variable ‘enterpriser context’. These variables returned loadings ranging from 0.594 to . 704. Consequently, variables B26 and B33-36 were dropped either due to cross loadings or low loadings on the factor. The six factors were then subjected to confirmatory factor analysis (CFA).

4.5.2.4 ICT Adoption

Table 4.19 ICT Adoption and Loadings

`4	**ICT Adoption**		**Mediator**
Code	**Label**	**Measure**	**Loadings**
C27	Customers	Integration	.748
C35	Communicating with employees	Usage	.739
C34	Transacting with customers	Usage	723
C28	Employees	Integration	.714
C29	Suppliers	Integration	.714
C33	Service providers	Integration	.710
C31	Enterprise partners	Integration	.701
C32	Enterprise networks	Integration	.683
C36	Ordering goods from suppliers	Usage	.683
C39	Managing employee productivity	Usage	.680
C38	Communicating with service providers	Usage	.653

C30	Government and support agencies	Integration	.637
C41	Keeping enterprise records	Usage	.629
C43	Transacting with service providers	Usage	.623
C37	File government returns	Usage	.535

The fourth factor after extraction process is ICT adoption (mediator). After subjecting all 17 variables to EFA, only two variables coded C40 and C42 were dropped. The remaining variables returned loadings ranging from a low of 0.535 to a high of 0.748. These 15 variables were subjected to the measurement and structural models to get the model fit for the data.

4.5.2.5 Enterprise Performance

Table 4.20 Enterprise Performance and Loadings

5	**Enterprise Performance**	**Outcome**
Code	**Label**	**Loadings**
D11	Helps attract customers	.728
D7	Reduce costs of defective products	.719
D12	Increase profits	.712
D10	Improve employee productivity	.692
D8	Exploit new opportunities for growth	.526

The last factor after extraction process was named enterprise performance (outcome). The name was changed from enterprise efficiency after scrutinizing the remaining variables. Out of 26 variables only 5 variables coded D11, D7, D12, D10 and D8 were retained as super variables, which retained the key information on the latent variable. These variables were loaded between a low of 0.526 to a high of 0.728. These 5 variables were subjected to the measurement and structural models to get the model fit for the data.

4.5.3 The Summated Scale Correlations

Table 4.21 Summated correlations

	External	Enterprise	Enterpriser	ICT Adoption	Performance
External	1				
Enterprise	.390**	1			
Enterpriser	-.026	.147*	1		
ICT adoption	-.108	-.036	.293**	1	
Performance	-.077	.108	.259**	.346**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Computed bivariate correlation of the identified five factors is presented in table 4.39. Correlation is used in factor analysis to examine the possibility of multicollinearity problems. As indicated in the table all of the items were correlated. Pearson's values were less than 0.9, which indicated the absence of a multicollinearity problem among the factors. All the factors correlated with values less than 0.6 (Hair et al., 2006). External context and enterprise context were highly correlated (r = .390, p-value <.01) compared to the rest of correlations. Enterpriser context returned all positive significant correlations except with external context (r= -.026). This implied that an increase in the enterpriser context, leads to an increase in the other factors with an exception of external context.

Factors that correlated negatively indicate an antagonistic relationship between them, that is, an increase in one factor leads to a decrease in the other. These results indicate that factors were fit for the next set of analyses.

4.6 Confirmatory Factor Analysis (CFA) Strategy

A Confirmatory Factor Analysis (CFA) was conducted using AMOS version 21. Measurement model validity depends on establishing acceptable levels of goodness-of–fit for the measurement model and finding specific evidence of construct validity. Validity is defined as the extent to which data collection methods accurately measure what they were intended to measure (Saunders & Thornhill, 2003).

The initial measurement model was used to assess the items internal consistence and their reliability (Byrne, 2001; Hair et al., 2006). Normally, the item factor loading above 0.55 in the CFA is considered satisfactory for running the structural model (Hair et al., 2006; Ho, 2006). Several measurements indices namely: Chi-square/df ratio, Adjusted Goodness of Fit Index (AGFI), the Goodness-of-Fit Index (GFI), and Root Mean Square Error of Approximation (RMSEA), Normed Fit Index (NFI), Relative Fit Index (RFI), Tucker Lewis Index (TLI) and RMR were used to assess the model fit (Hair et al., 2006). As the tests of measurement indices were either above or below the recommended value, the initial measurement model was further subjected to the model fit estimation.

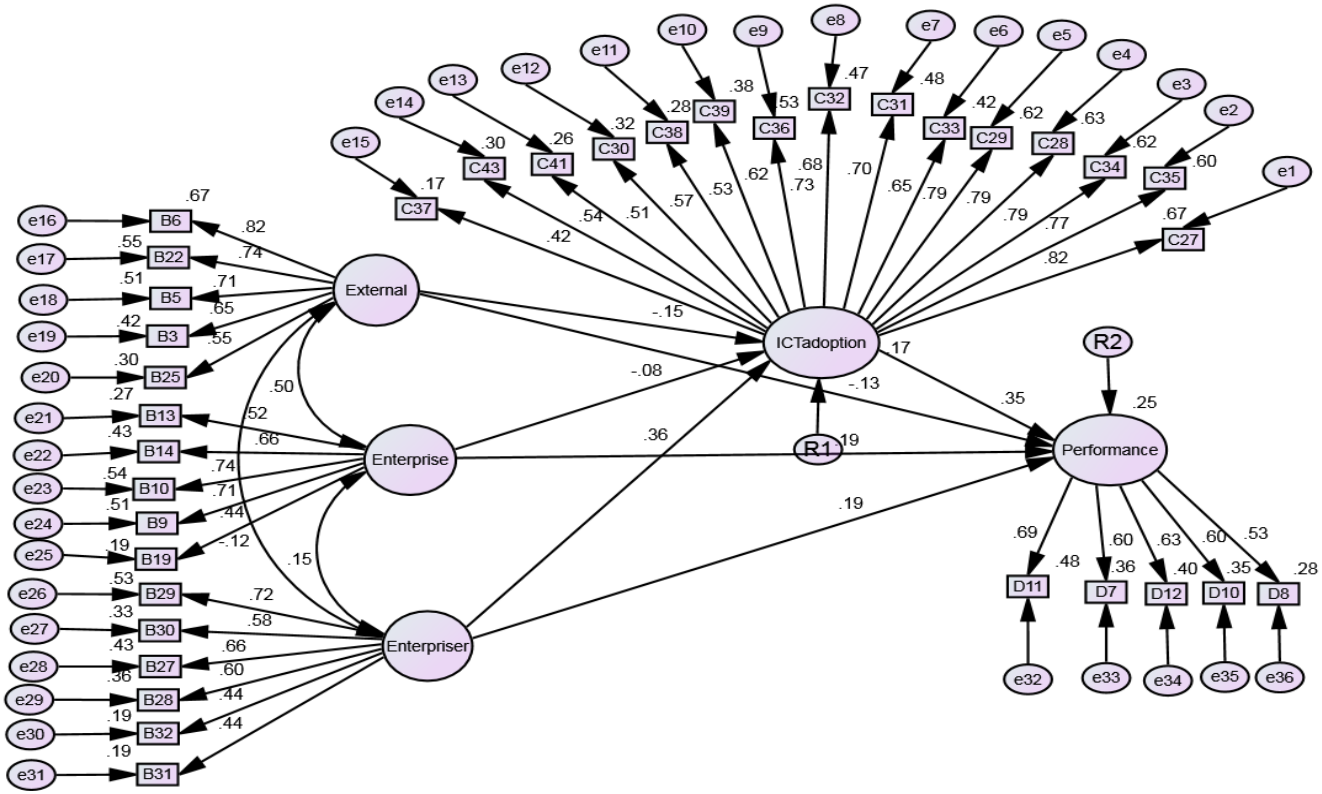


Fig. 4.2 Initial Measurement Model

Source: Researcher (2016)

4.6.1 Assessing Model Fit

Table 4.22 Initial and Expected threshold for the fit indices

Table 4.22 presented the initial measurement fit indices after the execution of the CFA as juxtaposed with the model fit indices threshold *(see Appendix III)*

	Recommended	Initial fit indices obtained
X^2	-	1541.781
Df	-	584
X2 significance	P> .05	.000
X2/df	<5.0	2.640
GFI	>.90	.683
AGFI	>.90	.638
NFI	>.90	.643
RFI	>.90	.615
CFI	>.90	.740
TLI	>.90	.720
RMSEA	<.05	.085
RMR	<.05	.110

Source: Researcher (2016)

From the results in table 4.40, all the indices failed to match the standard model fit indices threshold. This demonstrated that the model was not fit hence the need to subject to the model fit indices process of factor analysis**.**

4.6.2 Fitting the Model

Based on the fit indices obtained, a raft of rigorous modification was done to ensure that the model fits the data. It is rare that a model fits well at first. AMOS allows the use of modification indices to generate the expected reduction in the overall model fit. It involved adjusting a specified and estimated model by either freeing parameters that were fixed or fixing parameters that were free. One of the first strategies of model fitting was the elimination of variables with low loadings (.55) on the latent variables.

Variables with low loadings indicate low level of correlation with the latent variable. Such observed variables were eliminated from the structure. After each variable was eliminated, the structure model was re-run until the model was fit. Based on this standard, 20 observed variables were removed from the structure model. The variables eliminated were B25, B13, B19, B30, B32 and B31 from the independent variables. Equally, variables C37, C43, C41, C30, C38, C39, C32, C31, C33 and C34 were eliminated from the mediating variable. Finally, variable D8 was the only variable eliminated from the dependent variable.

After eliminating the above observed variables, then the model was re-run in order to establish if the model has improved and attained the threshold indices. In the case of the structure model, the indices were still indicative of a bad fit model. The researcher then engaged the next step. Modification of indices was done by checking the covering error terms with large values. These covariates were then covaried by using the double-headed arrow (signifying covariance). The process was systematic since it began with largest values of the error estimates observed. The covariates in different latent variables could not be covaried. If the process was undertaken meticulously, model fit indices would be obtained.

After covarying the error terms of the latent variables, a final model fit was achieved. The error terms covaried were e_2 with e_9 and e_1 with e_4. These error terms were symbolized by the double headed arrows. After the process of covarying, the final model fit met the model fit indices threshold as indicated in *table 4.41*.

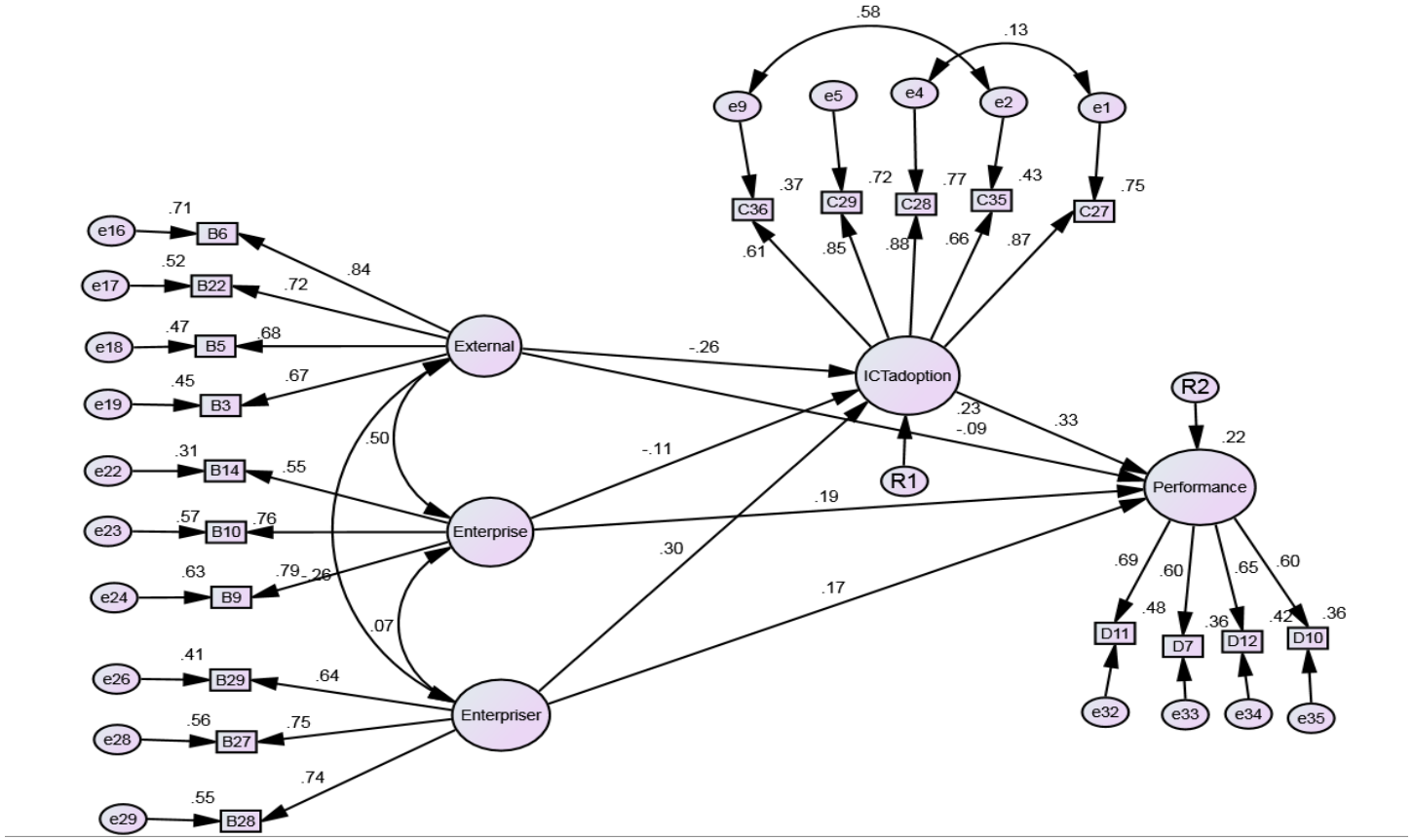


Fig. 4.3 Final Structural Model

Source: Researcher (2016)

4.6.3 Assessing Final Model Fit

Table 4.23 Model Fit Summary

Table 4.23 presented the initial and final measurement fit indices after the execution of the CFA as juxtaposed with the model fit indices threshold *(see Appendix III and IV)*

Model Index	Recommended	Initial fit index obtained	Final fit index obtained
X^2	-	1541.781	163.110
Df	-	584	137
X^2 Sig	P> .05	.000	0.063
X2/df	<5.0	2.640	1.191
GFI	>.90	.683	0.930
AGFI	>.90	.638	0.903
NFI	>.90	.643	.0913
RFI	>.90	.615	.892
CFI	>.90	.740	.985
TLI	>.90	.720	.981
RMSEA	<.05	.085	.029
RMR	<.08	.110	.065
PCLOSE	>.05	.000	.989

Source: Researcher (2016)

CMIN is the minimum value of the discrepancy between the model and the data. This is the same as the chi-square statistic. In the modified model CMIN was not significant (p=0.063). CMIN/df is the chi-square divided by its degrees of freedom. Acceptable value is less than 5.0. Using this criterion, the model value met the threshold (CMIN/df = 1.191)., Root Mean Square Residual (RMR) is the square root of the average squared amount by which the model's estimated sample variances and covariances differ from their actual values in the data. The smaller the RMR the better, with RMR = 0 indicating a perfect fit. The index threshold given of <.08 was met in the model (RMR <.065).

The Goodness of Fit Index (GFI) compares the independent model and the saturated model. A GFI value of >.90 demonstrates a good fit with the dataset (GFI>.930). This statistic is between 0 and 1, with 1 indicating perfect fit, and is used with maximum likelihood estimation for missing data. The Adjusted Goodness of Fit Index (AGFI =.903) takes into account the degrees of freedom available for testing the model and could at times have values below zero. AGFI assumes similar threshold like GFI, with a value of 1 indicating a perfect fit.

Another index used to model fit the proposed model was Normed Fit Index (NFI). NFI shows how far between the 'bad fit' independence model and the 'perfectly fitting' saturated model. In this case, it's 91% of the way to perfect fit against an expected standard of 0.90. Relative Fit Index (RFI) is the NFI standardized based on the *df* of the models, with values close to 1 again indicating a very good fit (RFI=.892). The value was deemed borderline, meaning it cannot affect the model fitness, especially being the only index that missed the set thresholds. Tucker-Lewis Coefficient (TLI) and Comparative Fit Index (CFI) range between 0 and 1, but not limited to that range. Value close to 1 indicates perfect fit and the reverse is true. TLI and CFI of the saturated model were 0.981 and 0.985 respectively.

Root Mean Standard Error Adjusted (RMSEA) favors more complex models. Again, upper and lower bounds of a 90% confidence interval were given. RMSEA values of .05 or less are good fit, <.1 to >.05 are moderate, and .1 or greater are unacceptable. RMSEA = .029 indicated perfect fit. The "PCLOSE" statistic that goes with this result is the probability of a hypothesis test that the population RMSEA is no greater than .05 hence a non-significant (p> .05) value, because you do not want to prove that the RMSEA was

significantly greater than .05. The RMSEA value decreased to between 0.03 and 0.08, which was the proposed range of adequate values (Hair et al., 2010).

PCLOSE value of 0.989 indicated a perfect fit. To further confirm that the model fitted the data, spot checking of the standardized residual variance table was necessary. The values in the table should not exceed a value of 2.58. Based on the values in *table 4.32*, the value is 2.444. This confirmed that our model fitted the data.

4.6.4 Unstandardized and Standardized Estimates

Table 4.24 Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ICT adoption	<---	External	-.219	.080	-2.742	.006	par_17
ICT adoption	<---	Enterprise	-.224	.188	-1.187	.235	par_18
ICT adoption	<---	Enterpriser	.510	.147	3.458	***	par_19
Performance	<---	Enterpriser	.161	.093	1.731	.084	par_20
Performance	<---	ICT adoption	.181	.052	3.506	***	par_21
Performance	<---	Enterprise	.210	.119	1.765	.078	par_22
Performance	<---	External	-.042	.050	-.846	.398	par_23

The unstandardized regression weights in table 4.24 indicated the correlations between the variables in the study. ICT adoption had significant relationship with external environment (β= -.219, p= .006), enterpriser (β= .510, p=.000) and performance (β=.181, p=.000). The other independent variables had no significant relationship with ICT adoption and performance (p>.005).

Table 4.25 Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
ICT adoption	<---	External	-.263
ICT adoption	<---	Enterprise	-.112
ICT adoption	<---	Enterpriser	.296
Performance	<---	Enterpriser	.171

			Estimate
Performance	<---	ICT adoption	.333
Performance	<---	Enterprise	.193
Performance	<---	External	-.093

Table 4.25 indicated the standardized regression weights (correlation values) among the variables. ICT adoption and enterprise performance had the highest correlation (β=.333) followed by ICT adoption and enterpriser (β =.296). The β values which were positive indicated an increase in one ICT adoption with an increase in other dimensions. The negative β values indicated the antagonistic relationship between the variables.

Table 4.26 Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Enterprise	<-->	Enterpriser	.020	.024	.808	.419	par_24
External	<-->	Enterprise	.292	.062	4.741	***	par_25
External	<-->	Enterpriser	-.171	.059	-2.896	.004	par_26
e2	<-->	e9	.392	.057	6.876	***	par_27
e1	<-->	e4	.040	.051	.785	.433	par_28

Table 4.26 summarized the covariances among the variables. All the estimates were positive except the relationship between the external and enterpriser contexts. The covariance e2and e9 (β= .392, p=.000) and e1 and e4 (β=.04, p=.433) were covaried in the process of the model fit.

Table 4.27 Correlations: (Group number 1 - Default model)

			Estimate
Enterprise	<-->	Enterpriser	.070
External	<-->	Enterprise	.504
External	<-->	Enterpriser	-.255
e2	<-->	e9	.584
e1	<-->	e4	.130

Table 4.27 showed how the variables correlated to each other. The enterpriser positively correlated with enterprise (β=.070) and negatively correlated with external environment (β=-.255). Equally, external environment and enterprise environment positively correlated (β =.504). The covariances also correlated positively.

Table 4.28 Total Effects (Group number 1 - Default model)

	Enterpriser	Enterprise	External	ICT adoption	Performance
ICT adoption	.510	-.224	-.219	.000	.000
Performance	.253	.170	-.082	.181	.000

Table 4.28 presented the unstandardized total effects of the model. ICT adoption had negative relationship with enterprise (β =-.224), external environment (β =-.219) and a positive relationship with enterpriser (β =.51). All the variables except external environment (β =-.082) had positive correlations with enterprise performance.

Table 4.29 Standardized Total Effects (Group number 1 - Default model)

	Enterpriser	Enterprise	External	ICT adoption	Performance
ICT adoption	.296	-.112	-.263	.000	.000
Performance	.269	.156	-.180	.333	.000

Table 4.29 presented the standardized total effects of the model. Enterpriser had the highest correlation with ICT adoption (β =.296) and enterprise performance (β =.269). Enterprise (β =-.112) and external environment (β =-.263) negatively correlate with ICT adoption.

Table 4.30 Standardized Direct Effects (Group number 1 - Default model)

	Enterpriser	Enterprise	External	ICT adoption	Performance
ICT adoption	.296	-.112	-.263	.000	.000
Performance	.171	.193	-.093	.333	.000

Table 4.30 presented standardized direct effects of the model. Enterprise performance and ICT adoption returned positive correlation (β =.333). Equally, Enterpriser and ICT adoption also returned positive correlation (β= .296). External environment returned negative relationship with ICT adoption (β=-.263) and enterprise performance (β=-.093).

Table 4.31 Standardized Indirect Effects (Group number 1 - Default model)

	Enterpriser	Enterprise	External	ICT adoption	Performance
ICT adoption	.000	.000	.000	.000	.000
Performance	.098	-.037	-.087	.000	.000

Table 4.31 presented standardized indirect effect or mediation effects. Enterpriser context had a positive relationship with performance when mediated by ICT adoption (β=.098). The enterprise (β =-.037) and external (β =-.087) contexts returned negative relationships with enterprise performance when mediated by ICT adoption.

Table 4.32 Standardized Residual Covariances

	D10	D12	D7	D11	B28	B27	B29	B9	B10	B14	B3	B5	B22	B6	C36	C29	C28	C35	C27
D10	.000																		
D12	-.357	.000																	
D7	.373	.125	.000																
D11	.052	.065	-.197	.000															
B28	-.823	-.713	-.909	-.938	.000														
B27	-.565	1.405	-.258	.119	.043	.000													
B29	1.181	2.013	.543	.172	.282	-.335	.000												
B9	.219	-.201	-.749	-.271	-1.012	.598	.659	.000											
B10	1.056	.684	-.257	.348	-.674	.094	1.174	.084	.000										
B14	-.105	-.427	-.634	-.221	-.489	-.260	.320	-.551	.425	.000									
B3	.171	.823	-.428	-1.150	-.155	.751	.764	-.217	-1.246	.050	.000								
B5	1.274	.808	-.071	-.690	.205	.402	.982	.898	.122	1.675	-.864	.000							
B22	1.353	1.996	-.421	.053	.511	1.368	2.444	.534	.375	1.184	.189	.614	.000						
B6	.792	.032	-.325	-1.672	-1.349	-1.099	-.593	.391	-1.653	.360	.214	.126	-.319	.000					
C36	.131	2.197	.374	.532	-.033	1.792	.379	-.761	-.351	-1.325	-.307	.763	1.048	.375	.000				

C29	-.259	.324	-.117	.069	-.357	1.025	-.695	-.074	.486	-.435	-1.155	2.227	.104	.552	-.161	.000		
C28	1.080	-.269	-.280	-.414	-.154	.014	-.484	-.576	-.109	.180	-2.529	1.472	-.282	-.436	-.343	.016	.000	
C35	.372	1.265	-.501	.854	-.354	.597	.258	-1.071	.195	-.259	-.670	1.912	.934	.312	.000	.081	-.026	.000
C27	-.881	-.708	-.010	.285	-.483	.553	-.465	.502	.627	.042	-2.211	1.509	.040	-.278	.363	.024	.000	-.108	.000

4.7 Hypotheses Testing

Latent variable models concern the presence, definition, and/or influence of constructs that either cannot be observed or characteristics that are, in principle, observable but that have not been directly observed in a given dataset (Bollen, 2002; MacCaallum & Austin, 2000). The findings are consequences of modifying the proposed model in the study through series of analysis. Key among these analysis was the use of EFA. These variables were subjected to EFA to identify the key observed variables responsible for each construct.

The resultant modified model depicts the interaction of the three variables namely: Environmental context (predictor), ICT adoption (Mediator) and Enterprise performance (Outcome). After EFA, 19 out of 78 observed constructs were deemed manifest or super-variables hence retained in the modified model. Of the 19 manifest variables, 5 strongly aligned to external context, 3 enterpriser context, 4 enterpriser context, 4 ICT adoption and 5 enterprise performance.

Table 4.33 Standardized Regression Weights: (Group number 1 - Default model)

Variables			Estimate	S.E.	C.R.	P
Performance	<---	External	-.093	.050	-.846	.398
ICT adoption	<---	External	-.263	.080	-2.742	.006
Performance	<---	ICT adoption	.333	.052	3.506	***
Performance	<---	Enterpriser	.171	.093	1.731	.084
ICT adoption	<---	Enterpriser	.296	.147	3.458	***
Performance	<---	Enterprise	.193	.119	1.765	.078
ICT adoption	<---	Enterprise	-.112	.188	-1.187	.235
External	**ICT Ad**	**Performance**	**-.087**			**.008**
Enterprise	**Performance**		**-.037**			**.222**
Entrepreneur	**ICT Ad**	**Performance**	**.098**			*******
	ICT Ad					

***** P<.001**

Key: ICT Ad ……. ICT Adoption

Source: Researcher (2016)

4.7.1 External Environment and Enterprise Performance

Objective one of the study examined the influence of external environment on enterprise performance of bars and night clubs. The objective yielded three hypotheses.

H_{01a}: *There is no significant relationship between external environment and enterprise performance.*

The relationship between the external environment (predictor) and enterprise performance (outcome) was premised on the hypothesis H_{01a}.

The modified model (Fig. 4.10) showed that the latent variables external environment and ICT adoption each had four (4) observed variables respectively. The standardized direct (unmediated) effect of external environment on enterprise performance is **β**=-.093, t= -.846, BCaCI [-.296, .150], (p=.487). Therefore, the hypothesis stating that there is no significant relationship between enterprise external environment and enterprise performance was supported (β =-.093, *p=.487).* The results indicated that for an increase in 1 standard deviation of external environment leads to a decrease of 0.093 standard deviation of enterprise performance. This meant that the standardized direct effect of external environment on enterprise performance was not significant, hence indicating that the predictor variable has no effect on the outcome variable.

This also implied that an increase in external determinants: Potential partnerships with suppliers of ICT (B3 =.45); Government legal and regulatory compliance (B5= .47); Cost of set-up and maintenance (B6= .71) and Availability of technical staff or consultants (B22= .52) negatively affects the enterprise performance. It also emerged that external environment accounted for 22% (R^2 =.22) of the effect in enterprise performance. The latent variable (external environment) in the model accounted for 71%, 52%, 47% and

45% of the observed variable B6, B22, B5 and B3 respectively. The differences (R^2 = .29, .48, .53 and .55) are accounted by other variables not in the model.

These findings are consistent with by Hirandranath et al., (2008), whose survey indicated that despite increased investment in the SME sector, there was very little strategic flexibility focused on enterprise performance. Government regulations, procuring technical expertise from ICT vendors and cost of set-up were viewed as inhibitors to ICT adoption (Ghobakhloo et al., 2012; Yahya et al., 2013).

SMEs view the cost of set-up and maintenance as prohibitive (Mohd et al., 2014; Yeng et al., 2015) and thus eat into the profit margins of the enterprise. Where sophisticated ICT applications were found, these were often driven by the need to comply with government regulations rather than through any considered attempt at using ICT strategically (Hirandranath et al., 2008; Akanbi, 2015; Mpofu & Gono, 2016).

H_{01b}: *There is no significant relationship between external enterprise environment and ICT adoption.*

The relationship between the external environment (predictor) and ICT adoption (dependent/mediating) was premised on the hypothesis H_{01b}.

The modified model (Fig. 4.10) shows that the latent variables external environment and ICT adoption had 4 and 5 observed variables respectively. The standardized direct (unmediated) effect of external environment on ICT adoption is β = -.263, t=-2.742, BCaCI [-.469,-.051], (p=.017). Therefore, the hypothesis stating that there is no significant relationship between external enterprise environment and ICT adoption was

not supported (β =-.263, p=.017).The results indicate that for an increase in 1 standard deviation of external environment leads to a decrease of 0.26 standard deviation of ICT adoption. This means that the standardized direct effect of external environment on ICT adoption is significant, hence indicating that the predictor variable has an effect on the mediator variable.

This also implies that an increase in external determinants: Potential partnerships with suppliers of ICT (B3 =.45); Government legal and regulatory compliance (B5= .47); Cost of set-up and maintenance (B6= .71) and Availability of technical staff or consultants (B22= .52) negatively affects the adoption of ICT in the enterprises. It also emerged that external environment accounts for 23% (R^2 =.23) of the effect in ICT adoption. The latent variable (external content) in the model account for 71%, 52%, 47% and 45% of the observed variable B6, B22, B5 and B3 respectively. The differences (R^2 = .29, .48, .53 and . 55) are accounted by other variables not in the model.

This result is consistent with findings from extant studies on SMEs that indicated that government support, ICT vendors and cost of set-up inhibit ICT adoption among SMEs (Calderra & Ward, 2003; Adebayo et al., 2013; Yahya et al., 2013; Tarute & Gatautis, 2014). A study by Ghobakhloo et al., (2012) targeting SMEs in Malaysia found that SMEs don't trust vendors and external expertise but instead wanted government to take up the role of encouraging ICT adoption (Mokaya, 2012). Adebayo et al., (2013) also found that legal and regulatory issues had a strong bearing on SMEs adoption of ICTs. This view was in tandem with similar studies which highlighted government regulation, role of vendors, and cost of set-up and maintenance as inhibitors (Ladokun et al., 2013; Wachira, 2014; Nduati et al., 2015; Nyakuma et al., 2016).

On the contrary, Mpofu and Gono (2016) opined that government role in the adoption of ICT was largely indirect (Yeng et al., 2015). Fink (1998) argues that SMEs are likely to adopt more ICT tools and applications if they receive support from the government (OECD, 2004; Ghobakhloo et al., 2012; Kiveu, 2013). Further, this study pointed out that SMEs in this sector expect not only no support from the government but a raft of regulatory and legal requirements, which, strain the already constrained resources (Fathian et al., 2008; Mokaya, 2012; Adebayo et al., 2012; Olise et al., 2014). Additionally, many ICT vendors and external expertise focus their attention to larger organizations hence disadvantaging the SMEs who are in dire need of their services. (Stockdale & Standing, 2004; Noor et al., 2014; Taylor, 2015).

H_{01c}: *There is no significant relationship between ICT adoption and enterprise performance.*

The relationship between the ICT adoption (predictor/mediator) and enterprise performance (outcome) was premised on the hypothesis $H_{01c.}$

The saturated model (Fig. 4.10) shows that the mediator variable (ICT adoption) and outcome variable (enterprise performance) have 5 and 4 observed variables respectively. The standardized direct effect of ICT adoption on enterprise performance is β=.333, t=3.506, BCaCI [.180, .499], (p=.001). Thus, the hypothesis stating that there is no significant relationship between ICT adoption and enterprise performance was not supported (β =.333, *p=.001).*The results indicated that for an increase in 1 standard deviation of ICT adoption leads to an increase of 0.333 standard deviation of enterprise performance. This means that the standardized direct effect of ICT adoption on enterprise

performance was significant, hence indicating that the mediator variable has an effect on the outcome variable.

This also implies that an increase in ICT adoption determinants: File government returns and taxes (C36= .61); Employees linkage (C27= .85); Suppliers linkage (C28= .88); Order goods from suppliers (C35= .66) and Government regulatory and support agencies linkages (C29= .87) positively affects enterprise performance. It also emerged that ICT adoption accounts for 22% (R^2 =.22) of the effect in enterprise performance. The mediating variable in the model account for 37%, 72%, 77%, 43% and 75% of the observed variable C36, C27, C28, C35 and C27. The differences (R^2 = .63, .28, .23, .57 and .25) are accounted by other variables not in the model.

These findings radiate well with findings of several scholars in this discourse. Makau and Wawire (2013), in a study conducted in Kenya, found that SMEs adopted ICTs to help them reach new customers, improve customer service, strengthen relationships with business partners as well as reduce costs (Akomea-Bonsu & Sampong, 2012; Wanjau et al., 2012; Makau & Wawire, 2013). Consoli (2012) provided a summary of performance indicators as efficiency, effectiveness and competitiveness, innovative business and intangible benefits (Mohammed et al., 2013; Tarute & Gatautis, 2014; Mohd et al., 2014; Ndekwa, 2014).

Despite all these benefits of ICT adoption (Adebayo et al., 2012) accruing to SMEs, many of them are apathetic towards its adoption (Mokaya, 2012; Makau & Wawire, 2013; Noor et al., 2015). Several studies have demonstrated the positive effects of ICT adoption on SME performance (Ghobakhloo et al., 2012). The indicators of performance

include profitability, productivity, increased market share, improved customer satisfaction and reduction in costs (Akomea-Bonsu & Sampong, 2012; Ladokun et al., 2013; Mohd et al., 2014; Appiah & Opare, 2015).

4.7.2 Enterpriser Attributes and Enterprise Performance

The second objective of the study assessed the influence of enterpriser attributes on enterprise performance in bars and night clubs. The objective yielded two hypotheses.

H_{02a}: *There is no significant relationship between enterpriser attributes and enterprise performance.*

The relationship between the enterpriser attributes (predictor) and enterprise performance (outcome) was premised on the hypothesis H_{02a}.

The modified model (Fig. 4.10) shows that the latent variables, external environment and enterprise performance had 3 and 4 observed variables respectively. The standardized direct (unmediated) effect of external environment on enterprise performance is β =0.171, t= 1.731, BCaCI [-.064, .412], (p=.164). Thus, the hypothesis stating that there is no significant relationship between enterpriser' attributes and ICT adoption was supported (β =.171, *p=.164).* The results indicated that for an increase in 1 standard deviation of enterpriser attributes leads to an increase of 0.171 standard deviation of enterprise performance. This meant that the standardized direct effect of enterpriser attributes on enterprise performance was not significant, hence indicating that the predictor variable has no effect on the outcome variable.

This also implied that an increase in enterpriser determinants: My capacity to take calculated risks (B29= .64); my self-esteem (B27= .75) and my concern for high quality

products/services (B28= .74) positively affects the enterprise performance. It also emerged that enterpriser attributes accounted for 22% (R^2 =.22) of the effect on ICT adoption. The latent variable (enterpriser content) in the model accounted for 41%, 56% and 55% of the observed variable B29, B27 and B28 respectively. The differences (R^2 = .59, .44 and .45) are accounted by other variables not in the model.

Hirandranath et al., (2008), in a study focusing enterprise performance in the logistics sector, observed that owner-managers often determine the nature and extent of ICT investments for enterprise productivity (Wanjau et al., 2012; Yahya et al., 2013; Olise et al., 2014). Ntwoku (2011) opined that owner-managers with higher level of education and skills in ICT are more likely to adopt new technologies.

The level of exposure mitigates the risk averse component as well as encouraging the owner-manager to gain confidence in adopting and use the ICTs (Mohammed et al., 2013; Akanbi, 2015; Awa et al., 2014). Many of them are also uninformed about the variety of support mechanisms available through regional and national agencies targeting SMEs (Ghobakhloo et al., 2012; Ladokun et al., 2013; Wachira, 2014).

It is also useful to outline that one of the main difficulties for SMEs in exploiting ICTs potentials for enterprise performance is the lack of awareness of the benefits to be derived coupled with little or no specific training on ICTs (Appiah et al., 2015; Mbuyisa et al., 2015; Nduati et al., 2015). Other characteristics that had been found to influence adoption in SMEs are firm age, sector, financial resources and experience (Goode & Stevens, 2000; Clear et al., 2013).

H_{02b}: There is no significant relationship between Enterpriser Attributes and ICT adoption.

The relationship between the ICT adoption (mediator/outcome) and enterpriser Attributes (predictor) was premised on the hypothesis H_{02b}.

The modified model (Fig. 4.10) shows that the latent variables enterpriser attributes and ICT adoption had 3 and 5 observed variables respectively. The standardized direct (unmediated) effect of enterpriser Attributes on ICT adoption is β = .30, t= 3.458, BCaCI [.151, .438], (p=.001). Therefore, the hypothesis stating that there is no significant relationship between enterpriser' attributes and ICT adoption was not supported (β =.30, *p=.001).*The results indicated that for an increase in 1 standard deviation of enterpriser attributes leads to an increase of 0.30 standard deviation of ICT adoption. This meant that the standardized direct effect of enterpriser attributes on ICT adoption was significant, hence indicating that the predictor variable has an effect on the mediator variable.

This also implied that an increase in enterpriser determinants: My capacity to take calculated risks (B29= .64); my self-esteem (B27= .75) and my concern for high quality products/services (B28= .74) positively affects the adoption of ICT in the enterprises. It also emerged that enterpriser attributes accounts for 23% (R^2 =.23) of the effect in ICT adoption. The latent variable (enterpriser content) in the model accounted for 41%, 56% and 55% of the observed variable B29, B27 and B28 respectively. The differences (R^2 = .59, .44 and .45) are accounted by other variables not in the model.

According to Wainwright et al., (2005) managerial ICT skills, ICT knowledge, and ICT practices are important determinants of whether ICT is adopted or rejected by the SMEs.

In a study targeting SMEs in Nairobi (Wanjau et al., 2012) on E-commerce, it emerged that leadership style and characteristics of the enterpriser were important determinants of ICT adoption (Ghobakhloo et al., 2012; Yahya et al., 2013; Olise et al., 2014). Later, study by Tarute and Gatautis (2014) on the impact of ICT on SME performance found that owner-manager characteristics were important influencers of ICT adoption (Mbuyisa et al., 2015; Nduati et al., 2015; Mpofu & Gono, 2016).

Interestingly, Nyakuma et al., (2016), while studying on challenges of adopting ICT by SMEs in Nigeria, found that SME owners were educated and ICT literate, yet had difficult in adopting ICT. Owner-managers, despite being ICT literate, should have positive attitudes such as ability to take calculated risks, self-confidence and focus for quality products in order to embrace ICT (Alford et al., 2016; Akanbi, 2016; Chivasa et al., 2016).

4.7.3 Enterprise environment and Enterprise performance

The third objective of the study examined the influence of enterprise environment on enterprise performance in bars and night clubs. The objective yielded two hypotheses.

H_{03a}: *There is no significant relationship between enterprise environment and enterprise performance.*

The relationship between the enterprise environment (predictor) and enterprise performance (outcome) was premised on the hypothesis H_{03a}.

From the findings, the latent variable, enterprise environment had 3 observable variables while enterprise performance had 4 variables (Fig. 4.10). The standardized direct

(unmediated) effect of enterprise environment on enterprise performance is β=0.193, t= 1.765, BCaCI [-.059, .429], (p=.127). Therefore, the hypothesis stating that there is no significant relationship between Internal enterprise environment and enterprise performance was supported (β =-.193, *p=.127).* The results indicated that for an increase in 1 standard deviation of enterprise environment leads to an increase of 0.193 standard deviation of enterprise performance. This meant that the standardized direct effect of enterprise environment on enterprise performance was not significant, hence indicating that the predictor variable had no effect on the outcome variable.

This also implied that an increase in enterprise determinants: Enterprise prior experience with new ICT (B14= .55): Security capabilities (B10= .76) and Reliability of the ICT (B9= .79) positively leads to an increase on enterprise performance in the enterprises. It also emerged that enterprise environment accounted for 22% (R^2 =.22) of the effect in enterprise performance. The latent variable (enterprise content) in the model accounted for 31%, 57% and 63% of the observed variable B14, B10 and B9 respectively. The differences (R^2 = .69, .43 and .37) are accounted by other variables not in the model.

Olise et al., (2014) theorized that increased adoption and use of ICT is likely to bestow firms with superior performance and competitive advantage over local and international competitors. This scenario was possible if SMEs commit more resources to enable ICT adoption entrenched in the enterprises (Gallo & Pont, 1996). Extant studies linked enterprise factors to enterprise performance (Akomea-Bonsu & Sampong, 2012; Adebayo et al., 2013). However, security capabilities, prior knowledge on how to use the new ICT and its reliability tend to inhibit its adoption (Zaied, 2012; Ladokun et al., 2013; Wachira, 2014).

In spite of the above ICT inhibitors, SMEs view ICT contributions as positive towards enterprise performance (Gusaptono et al., 2012; Rufai, 2014; Nduati et al., 2015). Onwuka et al., (2015) found that ICT organizational capabilities had a positive effect on enterprise performance.

H_{03b}: There is no significant relationship between ICT adoption and enterprise environment.

The relationship between the ICT adoption (mediator/outcome) and enterprise environment (predictor) was premised on the hypothesis H_{03b}.

The saturated model (Fig. 4.10) shows that the latent variables enterprise environment and ICT adoption have 3 and 5 observed variables respectively. The standardized direct (unmediated) effect of enterprise environment on ICT adoption is β= -.112, t=-1.187, BCaCI [-.311,-.091], (p=.267). Thus, the hypothesis stating that there is no significant relationship between enterprise internal environment and ICT adoption was supported (β =-.112, *p=.267).* The results indicate that for an increase in 1 standard deviation of enterprise environment leads to a decrease of 0.112 standard deviation of ICT adoption. This means that the standardized direct effect of enterprise environment on ICT adoption is not significant, hence indicating that the predictor variable has no effect on the mediator variable.

This also implies that an increase in enterprise determinants: Enterprise prior experience with new ICT (B14= .55): Security capabilities (B10= .76) and Reliability of the ICT (B9= .79) negatively affects the adoption of ICT in the enterprises. It also emerged that enterprise environment accounts for 23% (R^2 =.23) of the effect in ICT adoption. The

latent variable (enterprise content) in the model accounts for 31%, 57% and 63% of the observed variable B14, B10 and B9 respectively. The differences (R^2 = .69, .43 and .37) were accounted by other variables not in the model.

These findings supported arguments by Ghobakhloo *et al.*, (2011b) that limited financial resources compelled SMEs to be cautious about their investment and capital spending on ICT related investments. Additionally, SMEs in comparison with large firms lack in-house expertise, which negatively influence the process of ICT adoption (Chau, 1995; Cragg and Zinatelli, 1995; Fink, 1998; Akomea-Bonsu & Sampong, 2012; Ntwoku, 2011; Ongori & Migiro, 2010).

On the same breath, Tan et al. (2009) singled out high costs of ICT tools, expensive software and ICT security concerns as the major risks of ICT adoption perceived by Malaysian SMEs. Similarly, a study done by Abdel and Zaied (2012) among Egyptian SMEs on E-commerce affirmed that security was an integral factor in its adoption (Makau & Wawire, 2013; Wachira, 2014; Appiah & Opare, 2015). These results were therefore consistent with literature in the sense that the enterprise characteristics such as prior use of the new ICT, security concerns and reliability inhibit ICT adoption plans among SMEs.

4.7.4 External Environment and Enterprise Performance through ICT Adoption

Objective four of this study examined the mediating effect of ICT adoption on the relationship between external environment and enterprise performance in bars and night clubs.

The relationship between the external environment (predictor) and enterprise performance (outcome) mediated by ICT adoption was premised on the hypothesis below.

H_{04}: *There is no significant relationship between external environment and enterprise performance, mediated by ICT adoption.*

The model tested the indirect effect of ICT adoption on the relationship between external enterprise environment and enterprise performance. The standardized indirect effect of the three variables were, β = -.087, BCaCI [-.181, -.024], *p*=.008. Thus, the hypothesis stating that there is no significant relationship between external enterprise environment and enterprise performance with mediating effect of ICT adoption was not supported (β =-.087, *p=.008).* In effect, this meant that an increase in 1 standard deviation of external enterprise environment leads to a decrease of 0.087 standard deviation of enterprise performance. This means that the standardized indirect effect of external enterprise environment on enterprise performance was significant, hence indicating that the predictor variable had an effect on the outcome variable.

This also implied that an increase in external determinants: Potential partnerships with suppliers of ICT (B3 =.45); Government legal and regulatory compliance (B5= .47); Cost of set-up and maintenance (B6= .71) and Availability of technical staff or consultants (B22= .52) through ICT adoption ((C36 (.61), C27 (.85), C28 (.88), C35 (.66) and C27 (87)) negatively affects the enterprise performance when mediated by ICT adoption. It

also emerged that ICT adoption accounted for 22% (R^2 =.22) of the effect in enterprise performance whereas external environment accounted for 23% (*R^2=.23*).

Using ICT adoption as a mediator in the relationship between external environment and enterprise performance, the relationship assumed a significant stance (β =-.087, *p=.008)* unlike when it was standardized direct effect (β =-.093, *p=.487)*. The relationship therefore indicated a full mediation (Kenny & Baron, 1986).

The implication is that external factors negatively influence enterprise performance due to its financial commitment and governmental compliance on the part of the enterprise (Ghobakhloo et al., 2012; Agboh, 2015). However, according to Olise et al., (2014), SMEs invest in ICTs to help leverage their performances (Ghobakhloo et al., 2011; Ongori & Migiro, 2010). Additionally, Jaganathan et al. (2014) opined that ICTs play an important role in external relationships, enhancing communication and collaboration processes.

More specifically, ICT can reduce business costs, improve productivity and strengthen growth possibilities for SMEs (Onwuka et al., 2015). Further, Cant et al. (2016), while studying Internet-based ICT usage by South African SMEs, found a positive effect of ICT on enterprise performance in terms of productivity, profitability, market value and market share (Nduati et al., 2016; Ongori & Atambo, 2016).

4.7.5 Enterprise Environment and Enterprise Performance through ICT Adoption

Objective five assessed the mediating effect of ICT adoption on the relationship between enterprise environment and enterprise performance in bars and night clubs.

The relationship between the enterprise environment (predictor) and enterprise performance (outcome) mediated by ICT adoption was premised on the hypothesis below.

H_{05}: *There is no significant relationship between enterprise environment and enterprise performance, mediated by ICT adoption.*

The model tested the indirect effect of ICT adoption on the relationship between internal enterprise environment and enterprise performance. The standardized indirect effect of the three variables were, β = -.037, BCaCI [-.133, 0.023], *p*=.222. Thus, the hypothesis stating that there is no significant relationship between internal enterprise environment and enterprise performance with mediating effect of ICT adoption was supported (β =-.037, *p=.222).* In effect, this meant that an increase in 1 standard deviation of internal enterprise environment leads to a decrease of 0.037 standard deviation of enterprise performance. This meant that the standardized indirect effect of internal enterprise environment on enterprise performance is not significant, hence indicating that the predictor variable had no indirect effect on the outcome variable.

This also implies that an increase in enterprise environment determinants: Enterprise prior experience with new ICT (B14= .55): Security capabilities (B10= .76) and Reliability of the ICT (B9= .79) through ICT adoption ((C36 (.61), C27 (.85), C28 (.88), C35 (.66) and C27 (87)) negatively affects the enterprise performance. Using ICT adoption as a mediator in the relationship between enterprise environment and enterprise performance, the relationship assumed a non-significant stance (β =-.037, *p=.222)* like when it was standardized direct effect (β =-.193, *p=.127).* This confirmed that there was no mediation (Baron & Kenny, 1986).

The findings indicated that enterprise factors such as prior experience with new ICT, security and reliability of the ICT had negative influence on ICT adoption (Zaied, 2012; Ladokun et al., 2013; Appiah & Opare, 2015) and consequently on the enterprise performance. Scholars have argued that enterprises adopt ICT despite the negative impact of enterprise factors due to customer needs (Levy & Powell, 2005; Tarute & Gatautis, 2014; Mpofu &Gono, 2016). Others were forced to adopt by large enterprises (Poon & Swatman, 1996; Parker, 1997), while others adopt as a strategy to combat intensive competition in the market (Mohd et al., 2014; Appiah & Opare, 2015).

4.7.6 Enterpriser's attributes and enterprise performance through ICT adoption

Objective six of this study examined the mediating effect of ICT adoption on the relationship between enterpriser's attributes and enterprise performance in bars and night clubs.

The relationship between the enterpriser attributes (predictor) and enterprise performance (outcome) mediated by ICT adoption was premised on the hypothesis below.

H_{06}: *There is no significant relationship between enterpriser attributes and enterprise performance, mediated by ICT adoption.*

The model tested the indirect effect of ICT adoption on the relationship between enterpriser's attributes and enterprise performance. The standardized indirect effect of the three variables were, β =.098, BCaCI [.041, .198], *p*=.001. Thus, the hypothesis stating that there is no significant relationship between enterpriser's enterprise environment and enterprise performance with mediating effect of ICT adoption was not supported (β =-.098, *p=.001).* In effect, this meant that an increase in 1 standard deviation of

enterpriser's attributes leads to an increase of 0.098 standard deviation of enterprise performance. This meant that the standardized indirect effect of enterpriser's attributes on enterprise performance was significant, hence indicating that the predictor variable has an effect on the outcome variable through a mediator.

This also implies that an increase in enterpriser's contextual determinants: My capacity to take calculated risks (B29= .64); My self-esteem (B27= .75) and My concern for high quality products/services (B28= .74) through ICT adoption ((C36 (.61), C27 (.85), C28 (.88), C35 (.66) and C27 (87)) positively influences the enterprise performance. Using ICT adoption as a mediator in the relationship between enterpriser and enterprise performance, the relationship assumed a significant stance (β =.098, *p=.001)* unlike when it was standardized direct effect (*β =.171, p=.164)*. The relationship therefore indicated a full mediation (Kenny & Baron, 1986).

Enterpriser's characteristics such as ability to take calculated risks, self-esteem and the urge for quality products positively influenced enterprise performance (Wanjau et al., 2012). Other scholars have pointed the enterprisers' attributes to be significant in deciding whether to adopt ICT or not (Yahya et al., 2013; Olise et al., 2014; Harshana et al., 2015; Mpofu & Gono, 2016). Other characteristics that have been found to influence adoption in SMEs are enterprisers' age, education level, gender and experience (Goode and Stevens, 2000; Clear et al.,2013).

Table 4.34 Summary of the Hypotheses Testing

No	Hypotheses	Coefficient(beta value)	Verdict
H_{01a}:	There is no significant relationship between external enterprise environment and enterprise	**-.093**	**Supported**

	performance		
H_{01b}:	There is no significant relationship between external enterprise environment and ICT adoption	**-.263***	**Not supported**
H_{01c}:	There is no significant relationship between ICT adoption and enterprise performance	**.333*****	**Not supported**
H_{02a}:	There is no significant relationship between enterpriser's attributes and enterprise performance	**.171**	**Supported**
H_{02b}:	There is no significant relationship between enterpriser characteristics and ICT adoption	**.296*****	**Not supported**
H_{03a}:	There is no significant relationship between enterprise environment and enterprise performance	**.193**	**Supported**
H_{03b}:	There is no significant relationship between enterprise characteristics and ICT adoption	**-.112**	**Supported**
H_{04}:	There is no significant relationship between external enterprise environment and enterprise performance with mediating effect of ICT adoption	**-.087***	**Not supported**
H_{05}:	There is no significant relationship between enterprise characteristics and enterprise performance with mediating effect of ICT adoption	**-.037**	**Supported**
$H_{06:}$	There is no significant relationship between enterpriser characteristics and enterprise performance with mediating effect of ICT adoption	**.098*****	**Not supported**

***p<.05; ***p<.001**

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

This chapter presents a summary on the findings and conclusions drawn based on the objectives of the study. The chapter highlighted summary, conclusions, recommendations and implications of the study findings.

5.2 Summary

This section has been categorized into three sections. The first section handled discussion concerning the demographic profiles of both the respondents and the enterprises investigated. The second section dealt with the discussion on descriptive analysis while the last section presented the study hypotheses.

5.2.1 Demographic Profiles

Availability of up to date information about SMEs and ICT adoption has been a challenge in most of the studies conducted in developing countries (Molla and Licker, 2005a). Chowdhury (2006) notes lack of empirical evidence on the effects of investment in ICT among the SMEs in East Africa. Studies on ICT adoption in bars and night clubs were limited. Therefore, this study provided important empirical evidence on the status of the respondents, SMEs and ICT characteristics. The adoption of ICT among SMEs depends on, among other things, the availability of innovative, competent and vibrant owners and

personnel in the sector. Lee and Runge (2001) opine that key decision makers among the SMEs are important for the adoption of ICT.

The study targeted 229 owner-managers and 105 employees drawn from the entertainment sector. Specifically, the study focused on bars and night clubs in Nakuru town, which is designated into two commercial and administrative sections: Nakuru West and Nakuru East. Bars are legally required to operate between 5 o'clock in the evening and close business at 11 o'clock. Night clubs on the other hand are expected to open at 7 o'clock in the evening and close at 3 a.m. in the morning.

The study engaged two units of analysis, the owner-manager and the employee. The owner-manager has been picked and operationalized in this study to refer to the owner of the enterprise who works on a full time basis and doubles up as the manager or one who works on part time basis and has hired a manager who stands in when engaged elsewhere. The study operationalized the 'manager' as one who has full decision-making authority in running the enterprise operations granted by the enterpriser. This unit of analysis was picked in this study because decisions that concern acquisition of ICT tools and applications is often the preserve of the owner or delegated to top management.

The other unit of analysis was the employees in the enterprise. With regard to the employees, they were viewed as the users of the ICT tools and applications hence need to interrogate them to help triangulate the responses of the owner-managers. In this study, the employees only participated in the first phase of the study and dropped later as the analyses assumed decision-based dimensions (Yahya et al., 2013; Harshana et al., 2015).

Study findings indicated that majority of the respondents were managers compared to owners. This implied that owners have delegated the enterprise operations to managers perhaps because they are gainfully engaged elsewhere or lack the managerial capacity to execute the tasks. It also emerged that majority of the owner-managers were elderly compared to the employees. This finding indicates that the average age of the owner-managers is higher than that of employees, though considered young.

This concurred with a study done in the SMEs sector in Tanzania by Kilangi (2012) on determinants of ICT adoption and usage, which showed that majority of owner-managers and employees were under the age of 40 years hence portends a good chance to successfully adopt ICT (Wanjau et al. 2012). Age has a lot to do in the strategic and proactive mindsets of top executives in dealing with the competitive states of nature with regard to ICT adoption (Awa et al., 2014).

Findings from the study showed that males and females own or manage almost equal number of premises. This pointed out that female entrepreneurs have embraced economic activities, and more importantly even in the entertainment sector which was hitherto dominated by male entrepreneurs. This study contradicts a study by Jaganathan et al., (2014), which observed that more males than females were engaged in enterprises. On the other hand, more male employees than female employees were in the entertainment sector. This scenario could be attributed to time of work involved, which, prohibited female workers, especially those who are either married or have families to attend to. Interestingly, female owner-managers were more than their male counterparts, demonstrating the importance of the hitherto disadvantaged gender in the mainstream economy.

It emerged from the study that owner-managers were more educated than the employees. Majority of the owner-managers had at least a diploma level of education compared to majority of the employees who had secondary level of education and below. A smaller percentage of entrepreneurs had degrees and above (Jaganathan et al., 2014). This scenario could be attributed to age factor of the two groups. Employees were younger since they joined the enterprises after graduating from formal education. On the contrary, the owner-managers were elderly, hence had time to pursue their studies over time.

This findings contradict the work of Olomi (2009) who pointed out that entrepreneurs have low levels of education. And that the highly educated prefer public or private sector jobs to entrepreneurship (Ibid).This could perhaps indicate that few educated people have never had an interest in venturing into this type of enterprises.

On marital status of the respondents, majority of both owner-managers and employees were married. This implied that respondents had family responsibilities to take care of hence need to complement their other sources using proceeds from the enterprises. This finding concurs with a study done in Nigeria on the determinants of ICT adoption, which found that marital status significantly influences ICT adoption (Olise et al., 2014). It also came to light that most of the owner-managers and employees had between 6-10 year experiences in that type of business. This implied that they had gained enough experiences in handling the challenges faced in the industry. This pointed to the fact that the enterprises have weathered the challenges faced by start-ups (Awa et al., 2014). Similarly, Olise et al., (2014) attributed enterprise experience to the likelihood of ICT adoption among SMEs in Nigeria.

Findings on ICT proficiency of the respondents showed that owner-managers had a better ICT training than the employees. Equally significant to note was that there level of proficiency was moderate for owner-managers and low for the employees. This finding was significant to this study as it sets the background for ICT adoption in the enterprises. Ashrafi (2012) argued that ICT adoption required three conditions, namely: infrastructure, skilled ICT personnel and budget to invest in ICT tools. Owner-managers with ICT skills have a higher propensity for ICT adoption than those without (Onwuka, 2015).

5.2.2 Enterprise profile

The study findings indicated that there were more bars than night clubs and that more employees were from the night clubs compared to bar enterprises. This could be attributed to nature of work in night clubs, which were larger and engages for longer working hours unlike bars. Interestingly, majority of the enterprises were owned by sole proprietors and few were owned by partners and private limited owners. This shows that most enterprises were still controlled by the owners hence have a decision-making authority with regard to any form of investment. Further findings indicated that majority of the owner-managers were full-time entrepreneurs. This perhaps implied that most of the entrepreneurs may have entered to this sector of venture engagements as self-employment.

To determine the size of the enterprise, the study sought to know the number of permanent employee. Findings showed that enterprises employed between 6-10 permanent employees. In line with Kenyan definition of SMEs based on the number of

employees, these enterprises qualifies as micro enterprises (Micro, <10; Small, 10-50; Medium, >50, Gray, 2000). It also came to the fore that majority of the enterprises don't engage part time employees.

5.3.1 External Environment and Enterprise Performance

Objective one of the study assessed the influence of external environment on entertainment enterprise performance. From the analysis, three hypotheses were tested.

H_{01a}: *There is no significant relationship between external environment and enterprise performance.*

After undertaking EFA, CFA and structural model fit, five super-variables with sufficient loadings were found to be measuring the latent variable 'external environment'. These dimensions were c*ost of set-up and maintenance; availability of technical staff & consultants; government legal and regulatory compliance; potential partnerships with suppliers and support to top management.* On the other hand, the outcome variable (enterprise performance) was measured by four super-variables extracted by the structure modeling process. They were *helps attract customers; reduce costs of defective products; increase profits* and *improve employee productivity.*

The results from the structural model indicated external environment of the enterprise has no statistical significant influence on enterprise performance (β =-.093, *p=.487).* This meant that external factors namely; cost of set-up and maintenance, availability of technical staff and consultants, government legal and regulatory compliance, potential partnerships with suppliers and support to top management inhibit ICT adoption hence

has negative impact on the enterprise performance. Respondents failed to link external factors to enterprise performance.

These findings were consistent with by Hirandranath et al., (2008), whose survey indicated that despite increased investment in the SME sector, there is very little strategic flexibility focused on enterprise performance. Where sophisticated ICT applications were found, these were often driven by the need to comply with government regulations rather than through any considered attempt at using ICT strategically (Hirandranath et al., 2008). Cost of ICT set-up negatively influences ICT adoption among SMEs (Ghobakhloo et al., 2012; Adebayo et al., 2013; Wachira, 2014; Harshana et al., 2015). A study done by Wanjau et al., (2012) on E-commerce among tours and travel SME firms, affirmed that technical support from potential partners and suppliers was critical to ICT adoption hence enterprise performance.

In adopting ICTs, SMEs should consider support from network partners, ICT consultants and vendors (Taylor, 2015). Lack of ICT expertise and consultants serving the SME sector (Yahya et al., 2013; Noor et al., 2014; Appiah et al., 2015) has impeded ICT adoption. Ghobakhloo et al., (2012) argued that SMEs don’t trust ICT vendors and external expertise, therefore there was need for government to take up the role of encouraging ICT adoption among SMEs. Additionally, government legal and regulatory environment has not been favouring SMEs which intend to adopt ICT (Zaied, 2012; Gusaptono et al., 2012; Mokaya, 2012; Adebayo et al.,2013; Ladokun et al., 2013; Tarute & Gatautis, 2014). The findings were consistent with past literature on how legal and regulatory environment inhibits ICT adoption thus denying them benefits accruing from ICT.

Support to top management was also seen as a factor that had a bearing on ICT adoption among the SMEs. Wanjau et al., (2012) pointed out that management support given by the external parties help influence the level of integration of ICT. Top management must be proactive in sourcing support from these partners to enable the SMEs reap benefits attributable to ICT adoption (Ghobakhloo et al., 2012; Mohd et al., 2014; Appiah & Opare, 2015).

H_{01b}: *There is no significant relationship between external enterprise environment and ICT adoption.*

The final model fit yielded four super-variables with sufficient factor loadings measuring the latent variable 'external environment'. These dimensions were c*ost of set-up and maintenance; availability of technical staff & consultants; government legal and regulatory compliance; potential partnerships with suppliers and support to top management.* On the other hand, the outcome variable (ICT adoption) was measured by 5 super-variables extracted by the structure modeling process. They were e*mployees; suppliers; customers; communicating with employees and ordering goods from supplier.*

The study findings indicated that there was a statistically significant relationship between 'external environment' and ICT adoption (β =-.263, p=.017). The relationship is negative, meaning that an increase of the component 'external environment' leads to a decrease on ICT adoption. This further implies that the increase in c*ost of set-up and maintenance, Availability of technical staff & consultants, increased Government legal and regulatory compliance and cost of supporting potential partnerships and suppliers* were bound to lead to a decrease in ICT adoption.

These findings concurred with those found by Wanjau et al. (2012) concerning adoption of e-commerce by SMEs in Nairobi. It emerged that ICT supply chains, government role and technological support influenced the uptake of e-commerce. Cost of set-up and maintenance played a critical role in the adoption of ICT tools in the SME sector due to their constrained finances (Mokaya, 2012; Adebayo et al., 2013; Wachira, 2014; Akanbi, 2015; Ongori & Atambo, 2016).

In a study done by Yahya et al., (2013) on the role of owner-manager in ICT adoption, it emerged that lack of expertise from technical experts hindered ICT adoption (Akomea-Bonsu & Sampong, 2012; Ghobakhloo et al., 2012; Taylor, 2015; Chivasa et al., 2016). This result is consistent with findings from study done earlier in Portuguese on SMEs that indicated that perceived increased pressure from clients and suppliers on need to adopt ICT leads to increased expenditure (Calderra & Ward, 2003). Fink (1998) argues that SMEs are likely to adopt more ICT tools and applications if they receive support from the government (Gusaptono et al., 2012; Mokaya, 2012; Adebayo et al., 2013).

On the contrary, this study pointed out that SMEs in this sector expect not only no support from the government but a raft of regulatory and legal requirements, which, strain the already constrained resources (Fathian *et al.*,2008; Zaied, 2012;Adebayo et al., 2013; Yahya et al., 2013; Olise et al., 2014; Mpofu & Gono, 2016). Unfortunately, many ICT vendors focus their attention to larger organizations hence disadvantaging the SMEs who are in dire need of their services. (Stockdale & Standing, 2004, Ghobakhloo et al., 2012; Noor et al., 2014; Ismail et al., 2016).

H_{01c}: *There is no significant relationship between ICT adoption and enterprise performance.*

The next hypothesis tested the relationship between the mediator variable (ICT adoption) and the outcome variable (enterprise performance). In this scenario, the mediator variable converts into a predictor variable against the outcome variable. The latent variable 'ICT adoption' has five observed variables with sufficient factor loadings named e*mployees; suppliers; customers; communicating with employees and ordering goods from supplier.* The outcome variable 'enterprise performance ended up with four observed variables named *helps attract customers; reduce costs of defective products; increase profits* and *improve employee productivity.*

The findings indicated that there was a statistically significant relationship between ICT adoption and enterprise performance (β =-.333, *p=.001).* Equally, the relationship between the two variables was positive meaning that an increase in ICT adoption leads to an increase in enterprise performance. Thus, manipulation of the ICT adoption super-variables enhances enterprise performance in bar and night club enterprises. These findings radiated well with findings of several scholars in this discourse (Akomea-Bonsu & Sampong, 2012; Tarute & Gatautis, 2014; Taylor, 2015; Onwuka, 2015). Nyakuma et al., (2016) argued that ICT adoption among SMEs increases efficiency of enterprise operations, communication connectivity and market development (Ismail et al., 2016; Taylor, 2015).

Birgul et al., (2008) had earlier argued that technology is an important factor for the competitiveness of SMEs in several aspects such as production techniques, management methods, enterprise organization and staff training. Other benefits include efficiency gains, increased management effectiveness and improved enterprise performance (Fink, 1998; Wanjau et al., 2012; Makau & Wawire, 2013; Jaganathan et al., 2014; Mbuyisa et

al., 2015). Harshana et al., (2015) did a research on the impact of internet adoption on SMEs performance in Srilanka. The findings were consistent with other studies, citing enterprise efficiencies among other benefits of adopting the right technology.

Makau and Wawire (2013) asserted that ICT can be used as a business tool to reduce costs, create stronger links with customers, innovate and facilitate niche marketing. Others have had to support this assertion in other studies (Gilaninia, 2012; Ladokun et al., 2013; Wachira, 2014; Ndekwa, 2014).

5.3.2 Enterpriser and Enterprise Performance

Objective 2 of the study yielded two hypotheses which were tested.

H_{02a}: *There is no significant relationship between enterpriser attributes and enterprise performance.*

The model fit findings indicated that the latent variable 'enterpriser attributes' remained with three super-variables with sufficient factor loadings. These dimensions were: *capacity to take calculated risks; innovativeness and concern for high quality of products.* Enterprise performance (outcome variable) was measured by 4 super-variables extracted by the structure modeling process. They were *helps attract customers; reduce costs of defective products; increase profits* and *improve employee productivity.*

Results indicated that there was no statistically significant relationship between enterpriser attributes and enterprise performance (β =.171, *p=.164).* This implies that enterpriser's attributes of risk-taking, innovativeness, networking, urge for quality products, information seeking and technical knowledge and competences do not lead to enterprise performance.

Findings indicate that an increase in enterpriser's attributes leads to an increase in enterprise performance. Hirandranath et al., (2008), in a study focusing enterprise performance in the logistics sector, observed that owner-managers often determine the nature and extent of ICT investments for enterprise productivity. Wanjau et al. (2012) argued that leadership style of the enterpriser influences the adoption of ICT in an enterprise.

He also argued that age and education of the enterpriser has a huge bearing on ICT adoption. Young and educated enterprisers were more techno-savvy (Wanjau et al., 2012; Mokaya, 2012; Tarute & Gatautis, 2014; Awa et al., 2014). Mpofu and Gono (2016) argued that enterprisers' level of assertiveness on enterprise decision influences the adoption rate of ICT. Additionally, they don't have a strong ICT background or the skills necessary to judge the potential of ICT investments (Akomea-Bonsu & Sampong, 2012; Adebayo et al., 2013; Olise et al., 2014). Many of them are also uninformed about the variety of support mechanisms available through regional and national agencies targeting SMEs (Ghobakhloo et al., 2012; Ladokun et al, 2013; Wachira, 2014; Appiah & Opare, 2015; Mpofu & Gono, 2016).

It is also useful to outline that one of the main difficulties for SMEs in exploiting ICTs potentials for enterprise performance is the lack of awareness of the benefits to be derived coupled with little or no specific training on ICTs (Mokaya, 2012; Appiah & Opare, 2015; Nduati, 2015; Chivasa et al., 2016). On the contrary, many enterprisers in the SME sector appreciate the enormous benefits attributable to ICT adoption (Wanjau et al., 2012; Makau & Wawire, 2013; Jaganathan et al., 2014; Taylor, 2015; Mbuyisa, 2015).

H_{02b}: *There is no significant relationship between Enterpriser Attributes and ICT adoption.*

EFA, CFA and structural model fit was done to determine the number of super-variables to be retained. Three observed variables with sufficient loadings were found to be measuring the latent variable 'enterpriser environment'. These dimensions were *capacity to take calculated risks; innovativeness and concern for high quality of products.* ICT adoption (mediating variable) was measured by 5 super-variables extracted by the structure modeling process. They were e*mployees; suppliers; customers; communicating with employees and ordering goods from supplier.*

Findings indicate that there was a statistically significant relationship between enterpriser attributes and ICT adoption (β =.296, *p=.001).* The findings indicate that with an increase in enterpriser attributes there is an increase of ICT adoption. This means that there was a direct effect of enterpriser attributes on ICT adoption, hence indicating that the characteristics of the enterpriser are critical in the decision making of ICT adoption process. This finding resonated with results by Wanjau et al. (2012) that leadership style of the enterpriser had a bearing on the adoption rate (Mohammed et al., 2013).

Other extant researchers attributed enterprise characteristics such as age, gender, level of education, ICT training and enterprise experience to the rate of ICT adoption (Wanjau et al., 2012; Olise et al., 2014; Wachira, 2014; Awa et al., 2014; Akanbi, 2015; Mbuyisa et al., 2015; Nduati et al., 2015; Mpofu & Gono, 2016). Awa et al., (2014) specifically cited gender as a differentiator in ICT adoption. He argued that males adopt ICT earlier than

females, and that younger executives were more prone to embrace a set of new technology that elderly executives.

5.3.3 Enterprise Environment and Enterprise Performance

Objective three of the study assessed the influence of enterprise environment and enterprise performance in the bars and night clubs.

H_{03a}: *There is no significant relationship between enterprise environment and enterprise performance.*

After undertaking EFA, CFA and structural model fit, three super-variables with sufficient loadings were found to be measuring the latent variable 'enterprise environment'. These dimensions were e*nterprise prior knowledge with new ICT; security capabilities of the ICT and reliability of the ICT.* Enterprise performance (outcome variable) was measured by four super-variables extracted by the structure modeling process. They were *helps attract customers; reduce costs of defective products; increase profits* and *improve employee productivity.*

Results from the saturated model indicated that there was no statistical significant relationship between enterprise environment and enterprise performance (β =-.193, *p=.127).* This implied that the enterprise factors do not have relationship with enterprise performance. Thus, having prior knowledge with new ICT, security capabilities of the ICT and its reliability do not impact significantly on the performance of the enterprise. According to Mokaya (2012), SMEs are aware of the existence of ICT and that they don't think they are necessary for their enterprise success.

Ismail et al., (2016) argued that despite SMEs viewing that ICT was beneficial, they not only still adopt traditional methods but also demonstrate lack of knowledge and awareness of various technologies (Taylor, 2015). A research by Makau and Wawire (2013) on health-based SMEs found that adoption of ICT was deemed to undermine doctor-patient relationship by sharing confidential information. Limited ICT literacy in many SMEs inhibits its adoption (Ladokun et al., 2013; Yahya et al 2013; Olise et al., 2014; Appiah & Opare, 2015).

Another enterprise factor was security capabilities of the ICT. SMEs fear that ICT predisposes the enterprise to security-related concerns (Zaied, 2012; Makau & Wawire, 2013; Appiah & Opare, 2015). However, Wachira (2014) argued that ignorance is fueling such security concerns among SMEs in Kenya (Otengo et al., 2015; Mpofu & Gono, 2016).

H_{03b}: *There is no significant relationship between ICT adoption and enterprise environment.*

After undertaking EFA, CFA and structural model fit, three super-variables with sufficient loadings were found to be measuring the latent variable ‘enterprise environment’. These dimensions are e*nterprise prior knowledge with new ICT; security capabilities of the ICT and reliability of the ICT.* Enterprise performance (outcome variable) was measured by 5 super-variables extracted by the structure modeling process. They were e*mployees; suppliers; customers; communicating with employees and ordering goods from supplier.*

Findings of the study shows that there was no statistically significant relationship between enterprise environment and ICT adoption (β =-.112, *p=.267).* This implied that

an increase in the need for e*nterprise prior knowledge with new ICT, Security capabilities of the ICT and reliability of the ICT* leads to a decrease in ICT adoption. These findings support arguments by Ghobakhloo et al., (2011b) that limited financial resources compelled SMEs to be cautious about their investment and capital spending.

Additionally, SMEs in comparison with large firms lack in-house expertise, which negatively influence the process of ICT adoption (Chau, 1995; Cragg and Zinatelli, 1995; Fink, 1998; Akomea-Bonsu & Sampong, 2012; Adebayo et al., 2013; Wachira, 2014; Otengo et al., 2015; Mpofu & Gono, 2016). On the same breath, Tan et al. (2009) singled out high costs of ICT tools, expensive software and ICT security concerns as the major risks of ICT adoption perceived by Malaysian SMEs (Zaied, 2012; Ladokun et al., 2013; Noor et al., 2014; Appiah & Opare, 2015; Ongori & Atambo, 2016).

Reliability of the ICT in the execution of enterprise tasks has been doubted by many SME enterprisers (Ghobakhloo et al., 2012; Mokaya, 2012). A study by Makau and Wawire (2013) on ICT adoption in the health sector revealed that enterprisers were not keen to adopt it due to doctor-patient confidentiality. Wachira (2014) pointed out lack of trust and the relevance of e-business tools in certain sectors of the economy. These results are therefore consistent with literature in the sense that the challenges faced by enterprises inhibit ICT adoption plans.

5.3.4 External environment and enterprise performance through ICT Adoption

Objective four of this study examined the mediating effect of ICT adoption on the relationship between external environment and enterprise performance.

H_{04}: *There is no significant relationship between external environment and enterprise performance, mediated by ICT adoption.*

The next hypothesis tested three variables in the model. External environment was the predictor, ICT adoption was the mediator and enterprise performance was the outcome. The intention was to assess whether there was any mediating effect of ICT adoption between the predictor and the outcome variables. External environment is measured by c*ost of set-up and maintenance; availability of technical staff & consultants; government legal and regulatory compliance; potential partnerships with suppliers and support to top management.* The mediating variable was measured by e*mployees; suppliers; customers; communicating with employees and ordering goods from supplier.* Lastly, the outcome variable is measured by *helps attract customers; reduce costs of defective products; increase profits* and *improve employee productivity.*

The results indicated there was a statistically significant relationship between external environment and enterprise performance when mediated by ICT adoption (β =-.087, *p=.008).* The model tested the indirect effect of ICT adoption on the relationship between external enterprise environment and enterprise performance. In effect, this meant that ICT adoption mediated the influence of external environment on enterprise performance. The direct effect of external environment on enterprise performance was not only significant but also negative. But with the mediated effect of ICT adoption, it became significant. This indicated a full mediation.

Jaganathan et al., (2014) opined that ICTs play an important role in internal relationships, enhancing communication and collaboration processes. More specifically, ICT can reduce

business costs, improve productivity and strengthen growth possibilities for SMEs. Further, empirical studies by Brynjolfsson and Yang (1996) confirm the positive effect of ICT on enterprise performance in terms of productivity, profitability, market value and market share.

Many authors (Ghobakhloo et al., 2012; Adebayo et al., 2013; Wachira, 2014; Harshana et al., 2015) opined that external environment (cost of set-up and maintenance; Availability of technical staff & consultants; Government legal and regulatory compliance and Potential partnerships with suppliers) were inhibiting enterprise performance. However, ICT adoption enabled these variables to impact on the enterprise performance (Wanjau et al., 2012; Makau & Wawire, 2013; Jaganathan et al., 2014). It was therefore confirmed that ICT adoption had fully mediated the relationship between external environment and enterprise performance.

5.3.5 Enterprise environment and enterprise performance through ICT Adoption

Objective five of this study examined the mediating effect of ICT adoption on the relationship between enterprise environment and enterprise performance.

H_{05}: There is no significant relationship between enterprise environment and enterprise performance, mediated by ICT adoption.

This hypothesis tested the mediating effect of ICT adoption on the relationship between enterprise environment and enterprise performance. Enterprise environment is the predictor, ICT adoption is the mediator and enterprise performance is the outcome. Enterprise environment is measured by e*nterprise prior knowledge with new ICT;*

security capabilities of the ICT and reliability of the ICT. The mediating variable is measured by e*mployees; suppliers; customers; communicating with employees and ordering goods from supplier.* Lastly, the outcome variable is measured by *helps attract customers; reduce costs of defective products; increase profits* and *improve employee productivity.*

Study findings indicated that there was no statistical significance in the relationship between enterprise environment and enterprise performance when mediated by ICT adoption (β =-.037, *p=.222)*. The direct effect of enterprise environment on enterprise performance was not statistical significant. Equally, with the introduction of ICT adoption as a mediator, the relationship between enterprise environment and enterprise performance still remained insignificant. This was a manifestation of no mediation.

SMEs in developing countries were still apprehensive about the role played by ICT on enterprise performance (Mokaya, 2012; Makau & Wawire, 2012; Yahya et al., 2013; Noor et al., 2014). On the contrary, Mohd et al. (2014) argued that organizational factors such as top management support, availability of resources and budgets influences ICT adoption hence enterprise performance. These findings confirmed the view that SMEs were driven by the needs of their clients, consistent with earlier studies by Levy and Powell (2005). Poon and Swatman (1996) and Parker (1997), found small businesses were often forced to use ICT by large companies.

Nduati et al. (2015) argued that lack of managerial support and skills inhibited ICT adoption among SMEs in Thika, Kenya. Akanbi (2016) equally argued that lack of top management support, insufficient innovation and management structure inhibited ICT

adoption. While other researchers found no supplier influence on ICT adoption (Al-Qirim, 2003, Alam & Noor, 2009); the differences may be attributed to the frequency of interaction with suppliers/customers. It was therefore confirmed that ICT adoption had not mediated the relationship between enterprise environment and enterprise performance.

5.3.6 Enterpriser environment and enterprise performance through ICT adoption

Objective six of this study examined the mediating effect of ICT adoption on the relationship between enterpriser attributes and enterprise performance.

H_{05}: There is no significant relationship between enterpriser attributes and enterprise performance, mediated by ICT adoption.

This hypothesis tests three variables in the model. Enterpriser attributes as the predictor, ICT adoption as the mediator and enterprise performance as the outcome. It is hypothesized that ICT adoption does not mediate the relationship between enterpriser attributes and enterprise performance. Enterpriser attributes is measured by *capacity to take calculated risks; innovativeness and concern for high quality of products.* The mediating variable is measured by e*mployees; suppliers; customers; communicating with employees and ordering goods from supplier.* Lastly, the outcome variable is measured by *helps attract customers; reduce costs of defective products; increase profits* and *improve employee productivity.*

The model tested the indirect effect of ICT adoption on the relationship between enterpriser's attributes and enterprise performance (β =-.098, *p=.001).* This finding meant that there was a statistically significant relationship between enterpriser attributes and

enterprise performance when mediated by ICT adoption. In effect, this meant that an increase in enterpriser's attributes leads to an increase in enterprise performance.

A study by Yahya et al., (2013) found a strong support for the effect of owner-manager factors on ICT adoption due to the power they have over decision made in SMEs (Harshana et al., 2015). Some characteristics that have been found to influence adoption in SMEs are firm age, gender, educational level and experience (Goode and Stevens, 2000; Wanjau et al., 2012; Clear et al., 2013; Olise et al., 2014; Tarute & Gatautis, 2014).

Mpofu et al., (2010) suggested that owner-manager attributes such as background, knowledge, skills, attitudes and experience played a significant role in ICT adoption. It also emerged that the level of education, ICT expertise and ICT use was directly related to ICT adoption (Awa et al., 2014; Mpofu & Gono, 2016). Choudrie and Dwivedi (2005) had earlier argued that the level of education has no impact on ICT adoption. Attitude of the enterpriser towards ICT adoption and the trust vested upon vendors and external expertise (Ghobakhloo et al., 2012; Mohammed et al., 2013; Alford et al., 2016) impact on its adoption. It was therefore confirmed that ICT adoption had fully mediated the relationship between enterpriser attributes and enterprise performance.

5.4 Conclusions

The study interrogated a number of issues in an effort to answer research hypotheses. It examined various theories of ICT adoption, which helped in the construction of the research instrument. The study further delved into the entire discourse of determinants of ICT adoption and enterprise performance as key variables to the study. Additionally, the study findings contributed significantly to the body of literature in the realm of ICT adoption among SMEs in the service sector. The study findings also helped draw

theoretical and empirical implications to enrich the theory and practice of entrepreneurship in Kenya.

5.4.1 Entrepreneurial context and Enterprise performance

Entrepreneurial context has been operationalized in the study to reflect the three streams of entrepreneurship. These streams were external enterprise environment (external context), internal enterprise environment (enterprise context) and the entrepreneur (enterpriser context).

5.4.1.1. The External Environment

Study findings indicated that the external environment played a negative role in influencing the rate of ICT adoption in enterprises. It was evident that an increase in the external environment variables was bound to reduce both ICT adoption as well as enterprise performance. The view of the respondents was that external environment offered obstacles such as cost of set up, government regulatory and legal aspects, increased cost of services offered by suppliers and related vendors among others. These elevated costs tend to inhibit the enterprisers' attitude towards ICT adoption.

On the same note, the same costs eat into their revenue streams hence seen as a burden rather than a business enhancer. It also emerged from the study that external environment if mediated by ICT adoption influenced enterprise performance. Indeed the kind of mediation that manifested itself was full mediation. Full mediation is a scenario where the predictor and outcome variables have no significant relationship. But with entry of the mediator, the relationship becomes significant.

5.4.1.2 Enterprise Environment

This context dealt with variables which were within the internal environment of an enterprise. The variables extracted after model fit were reliability of the ICT, prior knowledge about the new technology to be adopted and security capabilities of the ICT to be adopted. Based on these observed variables, the study confirmed that the enterprise environment has insignificant relationship with both ICT adoption and enterprise performance.

It also emerged that the relationship was negative, meaning that an increase in the need to acquire an ICT tool which was reliable, secure and have advanced knowledge on how to use leads to a decrease in both ICT adoption as well as on enterprise performance. Perhaps the enterprise was not ready to spend more on training staff, acquiring the technology and also on safeguarding their resources. This scenario meant that ICT adoption manifested no mediation with regard to the relationship between enterprise environment and enterprise performance.

5.4.1.3 Enterpriser Environment

The enterpriser's role in any venture is to combine the factors of production. The attributes of the enterpriser determines the direction that the venture would take. The traits which were retained after model fit were the ability of the enterpriser to take calculated risks, innovativeness and interest of having high quality products. The study revealed that the enterpriser has a positive significant relationship with regard to ICT adoption and a positive relationship with enterprise performance.

This meant that an increase in the enterprisers' capabilities leads to an increase in ICT adoption and enterprise performance. The idea of adopting new and novel technologies requires calculated risk-taking blended with some degree of innovativeness. With regard to the mediator, it was revealed that ICT adoption mediated the relationship between enterpriser environment and enterprise performance. The import of this was that the presence of ICT tools and applications enhances enterprise performance. This therefore meant that ICT adoption manifested full mediation in the relationship between enterpriser environment and enterprise performance.

5.4.1.4. Availability of ICT

It emerged from the study findings that majority of the enterprises had adopted low-end (basic) levels of ICT adoption. Basic ICT tools and applications such as mobile phones, computers, televisions, fridges and calculator were among the most utilized tools. Database applications for employee management, supplier management and customer management were employed on a limited scale. It was also evident that night clubs had embraced more ICT tools and applications compared to bars. Despite adopting basic ICT tools, both bars and night clubs demonstrated enthusiasm in scaling up the adoption of technologies in their premises.

5.4.1.5. ICT Adoption

Extant literature in ICT adoption indicated its significance in enhancing enterprise performance. This was indeed prominent among large enterprises. ICT adoption studies have been done in all the sectors of the economy. However, there is limited research in the entertainment sector in general and bars/night clubs in particular. ICT adoption as a latent concept was measured using *integrating employees, integrating suppliers, integrating customers, communicating with employees* and *ordering goods from suppliers.* ICT adoptions construct combined integration and usage as sub-latent variables.

The study revealed that ICT adoption had negative insignificant relationship with both external and enterprise environments. This meant that an increase in external and enterprise environment dimensions reduced the level of ICT adoption. Simply put, increase in external costs associated with ICT as well as enterprise preparedness prior to adoption of ICT inhibited intentions to adopt. Additionally ICT adoption has significant and positive relationship with enterpriser and insignificant positive relations with performance. This implied that an increase in ICT adoption was perceived to increase enterprise performance despite the relationship being insignificant. Finally, ICT adoption mediated external and enterpriser environments and had full mediation effect.

5.4.1.6. Enterprise Performance

It was evident from the findings that the three exogenous variables had no significant relationship with enterprise performance. Contrary to the view that the external and internal infrastructure of an enterprise leads to enterprise performance, this wasn’t the

case in this study. Enterprise performance was finally measured in the model by four observed variables. They were: *attract customers, reduce costs, increase profits and improve employee productivity.* In the presence of the mediator (ICT adoption), the indirect path linking external and enterpriser attributes were significant. External environment was negative, meaning an increase in the variables, leads to a decrease in the enterprise performance. Enterpriser attributes was positive, meaning that an increase in the context leads to an increase in enterprise performance.

5.4.1.7 Indirect effects of ICT adoption

Many studies have focused on direct relations on ICT adoption-related studies. Very limited ones have ventured into the realm of complex three-variable interrogation. Based on the above study summary, the role of ICT adoption as a mediator came out prominently. Two types of mediations emerged: full mediation and no mediation. The relationship between external environment and enterprise performance mediated by ICT adoption was fully mediated. Equally, enterpriser attributes and enterprise performance when mediated by ICT adoption was fully mediated. Enterprise environment on the contrary demonstrated that there was no mediation at all.

5.5 Implications of the Study

This study has implications to various stakeholders involved in ICT and the entertainment sector in Kenya and the research fraternity. The theoretical implication concerns the body of literature and theories derived therein. The practical significance was of interest to the managerial and policy practitioners, who are vested with the responsibility of implementing government or other interested stakeholders strategies.

5.5.1 Theoretical Implications

This study has provided evidence that theories and constructs could be declared redundant when studies are done in different jurisdictions. It has also emerged that ICT adoption was a complex phenomenon influenced variedly by several factors. The study has contributed to the realm of ICT adoption in an unprecedented sub-sector of the economy (bars and night clubs). The study also contributed knowledge on how a third variable “ICT Adoption” when integrated led to indirect effects on entrepreneurial contexts. Many studies have focused on direct relationship, which seem obvious until a third variable was introduced.

Based on the level of ICT adoption in the entertainment sector, the study revealed the existence of a disconnect between adoption levels in developed and developing countries. In developing countries like Kenya, the entertainment sector has adopted basic level of ICT tools and applications, contrary to what obtained in developed economies such as Europe and America.

5.5.2 Practical Implications

Practical implications concerned the extent to which the results could be used to inform managerial and/or institutional interventions. Thus these findings would be helpful to managers as well as institutional heads and policy makers in the realm of entertainment and SME. Other beneficiaries include but not limited to training institutions, ICT vendors and consultants and the government.

The SMEs especially in the entertainment sector would benefit greatly from the study findings. The suppliers and vendors of these ICT tools would appreciate the need for

customized products which could add value to the enterpriser in the entertainment sector. It would enable them offer what is appropriate in the market contrary to current trend of offering what is available in the market.

The government would also benefit from these findings. Many policies geared towards encouraging SMEs to adopt ICT have been rolled out in the past, yet little has been achieved. These findings can guide policy drafters to come up with a tailor-made solution for the sector.

Equally, ICT consultants and vendors would use these findings to reassess their position in the SME market. This would help them develop strategies to bridge the apathy that exist among the SMEs with regard to seeking professional expertise on ICTs.

5.6 Recommendations

This study has enriched the field of entrepreneurship in general and technological entrepreneurship in particular. Based on the study findings, the following recommendations were proposed.

First, there was need for ICT suppliers and vendors to enhance their understanding on the ICT needs of SMEs in the entertainment sector. This would enable them come up with tailor-made solutions for their clientele in the sector.

Secondly, the government should cultivate harmonious relationship with the entrepreneurs so as to have their regulatory requirements embraced without any fear. This would in turn change the mindset of the entrepreneurs to see ICT adoption as a positive move for enhancing enterprise performance.

Thirdly, government should enhance training opportunities for entrepreneurs in the entertainment sector. This would ensure that they seize the benefits of transacting through ICT compliant platforms, hence collapsing the geographical barriers.

Lastly, ICT should be fully entrenched in the national school curricula to enable graduands leave with some basic computer literacy for them to easily embrace new technological tools and applications. Consequently, the absorption of such technologies in the market would be scaled up.

5.7 Suggestions for Further Research

i) The future of ICT in Kenya is promising. The study suggested similar research strategy to be applied in other sectors of the economy. This would provide room for comparing results drawn from different sectors using similar research model.

ii) Based on this study, mobile phones were widely used in the enterprises. Consequently, further research could be tailored to narrow itself to the effect of mobile telephony on SMEs in the entertainment sector.

iii) Further studies could also employ other expounded determinants of ICT adoption through modeling other theoretical constructs such as UTAUT, TAM, and TPB etc.

iv) Other studies could focus on the mediating roles of the enterprisers' characteristics on ICT adoption and entrepreneurial contexts. This would provide different perspectives of indirect effects in the realm of ICT adoption.

5.8 Limitations of the Study

This study faced design limitations namely; time horizon, triangulation, wide range of ICT elements and research approach. Firstly, this study was undertaken on a cross-

sectional timeframe which could pose some challenges in understanding this phenomenon in comparison to a longitudinal study. Longitudinal studies could be ideal for studies measured over a period of time. ICT adoption being a process could employ this strategy.

The Second limitation of this study was a focus on a wide range of ICT tools and applications. The study could have focused on one specific item such as internet or mobile phones. Thirdly, the triangulation component of this study was limited on data which could have had an effect on the findings. Future studies could employ other data collection methods such as interviews. This would enable in-depth analysis of the phenomenon under scrutiny.

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APPENDIX I: QUESTIONNAIRE FOR OWNER-MANAGER

Questionnaire No.:……..

Date …….. Street:…….

Dear Respondent,

My name is **David Sergon** and I am a doctoral student at Moi University. For my final thesis, I am examining **"Entrepreneurial Environmental effects on Entertainment Enterprises' Performance through Information and Communication Technology Adoption in Nakuru town, Kenya"** in your town. Because you are owner-manager/employee, I am inviting you to participate in this research study by completing the attached survey. Permission has been granted by Moi University, Research regulatory Authority and your County government.

The following questionnaire will require approximately 20 minutes completing. There is no compensation for responding nor is there any known risk. In order to ensure that all information will remain confidential, please do not include your name. Copies of the project will be provided to my University for public consumption. If you choose to participate in this project, please answer all questions as honestly as possible. Participation is strictly voluntary and you may refuse to participate at any time.
Thank you for taking the time to assist me in my educational endeavors. The data collected will provide useful information regarding policies on ICT adoption strategies in the SME sector. Completion and return of the questionnaire will indicate your willingness to participate in this study. If you require additional information or have questions, please contact me at the number listed below.
Sincerely,
David Sergon
SHRD/DE/01/13
+254-722698746 or email to: sireclie@yahoo.com
Respondents Signature …….. Date: ……
Researchers' Signature ……Date: ……

SUPERVISORS
Dr. Bernard Nassiuma ……. Date:……..…

Prof. Peter Omboto ……... Date: ……

Section A: Demographic Data

	Enterprisers' profile
A1	Designation: ( ) Owner ( ) Manager
A2	How old are you in years? ……..
A3	What is your gender? ( ) Male ( ) Female
A4	What is your highest level of education? ( ) None ( ) Primary ( ) Secondary ( ) Certificate ( ) Diploma ( ) Higher Diploma ( ) Bachelors ( ) Masters Others ……
A5	Marital status: ( ) Single ( ) Married ( ) Divorced ( ) Widow ( ) Widowed Other ……..
A6	Experience in years in this type of enterprise ……..
A7	Have you had any ICT-oriented training? ( ) Yes ( ) No
A8	If yes to A7, please rate your level of competence in ICT utilization on the scale provided. (Not proficient) **1 2 3 4 5** (Proficient)
	Enterprise Profile
A9	Type of Enterprise: ( ) Bar ( ) Night club
A10	Form of Enterprise ( ) Sole proprietorship ( ) Partnership ( ) Private limited liability Other ……
A11	Entrepreneurial status ( ) Part-time Entrepreneur ( ) Full-time Entrepreneur
A12	**Number of employees: At Start-up Now**
	Permanent [ ] [ ]
	Part-time [ ] [ ]
A13	Estimated daily sales in Kshs: [_____] **At Start-up** [_____] **Now**
A14	Capital invested in kshs [_____] **At Start-up** [_____] **Now**
A15	Estimate daily profits in kshs [_____] **At Start-up** [_____] **Now**

SECTION B: ENTERPRISE CONTEXT FOR ICT ADOPTION						
B. Please rate the influence of the factors listed below on ICT adoption in your enterprise using the scale provided.(Strongly Agree (SA); Agree (A); Neutral (N); Disagree (D); Strongly Disagree (SD))						
Code	**Enterprise Environment**	**SA**	**A**	**N**	**D**	**SD**
B1	Prevailing competitive pressure					
B2	Government support					
B3	Potential partnerships with suppliers of ICT					
B4	Technologically aware market					
B5	Government legal and regulatory compliance					
B6	Cost of set-up and maintenance					
B7	Technological compatibility with existing enterprise structure					
B8	Access to network services and infrastructure					
B9	Reliability of the ICT					
B10	Security capabilities					
B11	Availability of existing ICT					
	Enterprise Profile	**SA**	**A**	**N**	**D**	**SD**
B12	Proper training of employees prior to ICT roll-out					
B13	Employee/owner ICT competences					
B14	Enterprise prior experience with new ICT					
B15	Existence of successful ICT business models in the industry					
B16	Perceived value or relevance of ICT to the business					
B17	Employee experiences in ICT tools and techniques					
B18	Access to capital for ICT acquisition					
B19	Potential for re-organization for the enterprise					
B20	Provision for a budget for ICT adoption					
B21	Projected profitability of ICT adoption					
B22	Availability of technical staff or consultants					
B23	Enterprise ICT culture					
B24	Size of enterprise operations					
B25	Support from top management					
	Enterpriser's Profile	**SA**	**A**	**N**	**D**	**SD**
B26	My self confidence					
B27	My self esteem					
B28	My concern for high quality products/services					
B29	My capacity to take calculated risks					
B30	My interest in information seeking					

SECTION B: ENTERPRISE CONTEXT FOR ICT ADOPTION						
B. Please rate the influence of the factors listed below on ICT adoption in your enterprise using the scale provided.(Strongly Agree (SA); Agree (A); Neutral (N); Disagree (D); Strongly Disagree (SD))						
B31	My technical knowledge					
B32	My interest for networking with partners					
B33	My interest to communicate with partners					
B34	My nature of spotting an opportunity					
B35	My interest in making informed decisions					
B36	My intention to achieve my enterprise objectives					

Section C: ICT adoption in the Entertainment Sector				
C1. Please indicate the availability ICT tools and their applications in bars and night clubs, using the scale provided **(NOT FOR PERSONAL USE).** (Always (3); Sometimes (2); Never (1))				
Code	**ICT tools and applications**	**Availability**		
		Always	**Sometimes**	**Never**
C1	Personal computer/Laptop(s)			
C2	Mobile phones			
C3	Payment using Credit card			
C4	Mobile banking			
C5	Mpesa payments/Lipa na Mpesa			
C6	Electronic tax register			
C7	Touch screens for enterprise operations			
C8	DSTV			
C9	Televisions			
C10	Music system			
C11	Disco lights			
C12	Air condition			
C13	Employee database			
C14	Supplier database			
C15	Customer database			
C16	Customer relationship management			
C17	Financial records/database			
C18	Security alarm			
C19	CCTV			
C20	Fridges			
C21	Calculators			
C22	Social media			
C23	Projector			
C24	Internet			
C25	Wifi			

C2. ICT Integration

Please rate the level of ICT linkages/integration with persons/organizations using the scale provided.
(Highly linked (**HL**); Linked (**L**); Moderately Linked (**ML**); Lowly Linked (**LL**); Not linked (**NL**))

Code	**Level of integration**	**4**	**3**	**2**	**1**	**0**
C26	Customers					
C27	Employees					
C28	Suppliers					
C29	Government regulatory and support agencies					
C30	Enterprise partners					
C31	Enterprise networks					
C32	Service providers					

C3.ICT Usage
Please rate the level of ICT usage in the listed enterprise operations, using the scale provided below. (Always **(A);** Most of the time **(MT);** Usually **(U);** Sometimes **(S);** Never **(N)).**

Code	**ICT usage to:**	**4**	**3**	**2**	**1**	**0**
C33	Transact with customers					
C34	Communicate with employees					
C35	Order goods from suppliers					
C36	File government returns and taxes					
C37	Communicate with service providers					
C38	Manage my employees productivity					
C39	Attract more customers					
C40	Keep enterprise records					
C41	Entertain customers					
C42	Transact with service providers					

SECTION D: ICT and Enterprise Performance

D. Please rate the level of enterprise performance attributed to ICT adoption using the scale provided.
Strongly Agree (**SA**); Agree (**A**); Neutral (**N**); Disagree (**D**); Strongly Disagree (**SD**)

Code	**Factors**					
	Efficiency on Cost	**SA**	**A**	**N**	**D**	**SD**
D1	Reduces my enterprise administrative costs					
D2	Reduces costs associated with security in my enterprise					
D3	Reduce loss of assets in my enterprise					
D4	Prevents loss of information in my enterprise					
D5	Reduces consumption of energy in my enterprise					

SECTION D: ICT and Enterprise Performance						
D. Please rate the level of enterprise performance attributed to ICT adoption using the scale provided. Strongly Agree (**SA**); Agree (**A**); Neutral (**N**); Disagree (**D**); Strongly Disagree (**SD**)						
D6	Reduces wastage of resources in my enterprise					
D7	Reduces costs associated with defective products					
	Efficiency on Quantity	**SA**	**A**	**N**	**D**	**SD**
D8	Helps exploit new opportunities for enterprise growth					
D9	Enables my enterprise increase sales					
D10	Improves employee productivity in my enterprise					
D11	Helps attract new customers to my enterprise					
D12	Helps increase profits in my enterprise					
D13	Enables my enterprise to open other branches					
	Efficiency on Quality	**SA**	**A**	**N**	**D**	**SD**
D14	Improves my enterprise customer services					
D15	Provides my enterprise with competitive advantage					
D16	Improves communication with my customers					
D17	Enhances customer satisfaction of my clients					
D18	Facilitates interactions with business partners					
D19	Enhances my business brand					
D20	Helps reduce enterprise risks and uncertainties					
	Efficiency on Time	**SA**	**A**	**N**	**D**	**SD**
D21	Real-time operations in my enterprise					
D22	Access to timely information services					
D23	Submit government regulatory information promptly					
D24	Communicate promptly with my partners					
D25	Manage punctuality and absenteeism among employees					
D26	Manage operations cycle time					

E. Comments

……

……

……

……

END

APPENDIX II: QUESTIONNAIRE FOR EMPLOYEES

Questionnaire No.:……..

Date …….. Street:…….

Dear Respondent,

My name is **David Sergon** and I am a doctoral student at Moi University. For my final thesis, I am examining **"Entrepreneurial Environmental effects on Entertainment Enterprises' Performance through Information and Communication Technology Adoption in Nakuru town, Kenya"** in your town. Because you are owner-manager/employee, I am inviting you to participate in this research study by completing the attached survey. Permission has been granted by Moi University, Research regulatory Authority and your County government.

The following questionnaire will require approximately 20 minutes completing. There is no compensation for responding nor is there any known risk. In order to ensure that all information will remain confidential, please do not include your name. Copies of the project will be provided to my University for public consumption. If you choose to participate in this project, please answer all questions as honestly as possible. Participation is strictly voluntary and you may refuse to participate at any time.
Thank you for taking the time to assist me in my educational endeavors. The data collected will provide useful information regarding policies on ICT adoption strategies in the SME sector. Completion and return of the questionnaire will indicate your willingness to participate in this study. If you require additional information or have questions, please contact me at the number listed below.
Sincerely,
David Sergon
SHRD/DE/01/13 +254-722698746 or email to: sireclie@yahoo.com
Respondents Signature …….. Date: ……
Researchers' Signature ……Date: ……

SUPERVISORS
Dr. Bernard Nassiuma ……. Date: ……

Prof. Peter Omboto ……. Date: ……

Section A: Demographic Data

	Enterprisers' profile

A1	Designation: ( ) Owner ( ) Manager
A2	How old are you in years? ……..
A3	What is your gender? ( ) Male ( ) Female
A4	What is your highest level of education? ( ) None ( ) Primary ( ) Secondary ( ) Certificate ( ) Diploma ( ) Higher Diploma ( ) Bachelors ( ) Masters Others ……
A5	Marital status: ( ) Single ( ) Married ( ) Divorced ( ) Widow ( ) Widowed Other ……..
A6	Experience in years in this type of enterprise ……..
A7	Have you had any ICT-oriented training? ( ) Yes ( ) No
A8	If yes to A7, please rate your level of competence in ICT utilization on the scale provided. (Not proficient) **1 2 3 4 5** (Proficient)
	Enterprise Profile
A9	Type of Enterprise: ( ) Bar ( ) Night club
A10	Form of Enterprise ( ) Sole proprietorship ( ) Partnership ( ) Private limited liability Other ……
A11	Entrepreneurial status ( ) Part-time Entrepreneur ( ) Full-time Entrepreneur
A12	**Number of employees: At Start-up Now**
	Permanent [ ] [ ] Part-time [ ] [ ]
A13	Estimated daily sales in Kshs: [_____] **At Start-up** [_____] **Now**
A14	Capital invested in kshs [_____] **At Start-up** [_____] **Now**
A15	Estimate daily profits in kshs [_____] **At Start-up** [_____] **Now**

SECTION B: ENTERPRISE CONTEXT FOR ICT ADOPTION						
B. Please rate the influence of the factors listed below on ICT adoption in your enterprise using the scale provided.(Strongly Agree (SA); Agree (A); Neutral (N); Disagree (D); Strongly Disagree (SD))						
Code	**Enterprise Environment**	**SA**	**A**	**N**	**D**	**SD**
B1	Prevailing competitive pressure					
B2	Government support					
B3	Potential partnerships with suppliers of ICT					
B4	Technologically aware market					
B5	Government legal and regulatory compliance					
B6	Cost of set-up and maintenance					
B7	Technological compatibility with existing enterprise structure					
B8	Access to network services and infrastructure					
B9	Reliability of the ICT					
B10	Security capabilities					
B11	Availability of existing ICT					
	Enterprise Profile	**SA**	**A**	**N**	**D**	**SD**
B12	Proper training of employees prior to ICT roll-out					
B13	Employee/owner ICT competences					
B14	Enterprise prior experience with new ICT					
B15	Existence of successful ICT business models in the industry					
B16	Perceived value or relevance of ICT to the business					
B17	Employee experiences in ICT tools and techniques					
B18	Access to capital for ICT acquisition					
B19	Potential for re-organization for the enterprise					
B20	Provision for a budget for ICT adoption					
B21	Projected profitability of ICT adoption					
B22	Availability of technical staff or consultants					
B23	Enterprise ICT culture					
B24	Size of enterprise operations					
B25	Support from top management					
	Enterpriser's Profile	**SA**	**A**	**N**	**D**	**SD**
B26	My self confidence					
B27	My self esteem					
B28	My concern for high quality products/services					
B29	My capacity to take calculated risks					
B30	My interest in information seeking					

SECTION B: ENTERPRISE CONTEXT FOR ICT ADOPTION						
B. Please rate the influence of the factors listed below on ICT adoption in your enterprise using the scale provided.(Strongly Agree (SA); Agree (A); Neutral (N); Disagree (D); Strongly Disagree (SD))						
B31	My technical knowledge					
B32	My interest for networking with partners					
B33	My interest to communicate with partners					
B34	My nature of spotting an opportunity					
B35	My interest in making informed decisions					
B36	My intention to achieve my enterprise objectives					

Section C: ICT adoption in the Entertainment Sector				
C1. Please indicate the availability ICT tools and their applications in bars and night clubs, using the scale provided **(NOT FOR PERSONAL USE).** (Always (3); Sometimes (2); Never (1))				
Code	**ICT tools and applications**	**Availability**		
		Always	**Sometimes**	**Never**
C1	Personal computer/Laptop(s)			
C2	Mobile phones			
C3	Payment using Credit card			
C4	Mobile banking			
C5	Mpesa payments/Lipa na Mpesa			
C6	Electronic tax register			
C7	Touch screens for enterprise operations			
C8	DSTV			
C9	Televisions			
C10	Music system			
C11	Disco lights			
C12	Air condition			
C13	Employee database			
C14	Supplier database			
C15	Customer database			
C16	Customer relationship management			
C17	Financial records/database			
C18	Security alarm			
C19	CCTV			
C20	Fridges			
C21	Calculators			
C22	Social media			
C23	Projector			
C24	Internet			
C25	Wifi			

C2. ICT Integration

Please rate the level of ICT linkages/integration with persons/organizations using the scale provided.
(Highly linked (**HL**); Linked (**L**); Moderately Linked (**ML**); Lowly Linked (**LL**); Not linked (**NL**))

Code	**Level of integration**	**4**	**3**	**2**	**1**	**0**
C26	Customers					
C27	Employees					
C28	Suppliers					
C29	Government regulatory and support agencies					
C30	Enterprise partners					
C31	Enterprise networks					
C32	Service providers					

C3.ICT Usage
Please rate the level of ICT usage in the listed enterprise operations, using the scale provided below. (Always **(A);** Most of the time **(MT);** Usually **(U);** Sometimes **(S);** Never **(N)).**

Code	**ICT usage to:**	**4**	**3**	**2**	**1**	**0**
C33	Transact with customers					
C34	Communicate with employees					
C35	Order goods from suppliers					
C36	File government returns and taxes					
C37	Communicate with service providers					
C38	Manage my employees productivity					
C39	Attract more customers					
C40	Keep enterprise records					
C41	Entertain customers					
C42	Transact with service providers					

SECTION D: ICT and Enterprise Performance

D. Please rate the level of enterprise performance attributed to ICT adoption using the scale provided.
Strongly Agree (**SA**); Agree (**A**); Neutral (**N**); Disagree (**D**); Strongly Disagree (**SD**)

Code	**Factors**					
	Efficiency on Cost	**SA**	**A**	**N**	**D**	**SD**
D1	Reduces my enterprise administrative costs					
D2	Reduces costs associated with security in my enterprise					
D3	Reduce loss of assets in my enterprise					
D4	Prevents loss of information in my enterprise					
D5	Reduces consumption of energy in my enterprise					

SECTION D: ICT and Enterprise Performance						
D. Please rate the level of enterprise performance attributed to ICT adoption using the scale provided. Strongly Agree (**SA**); Agree (**A**); Neutral (**N**); Disagree (**D**); Strongly Disagree (**SD**)						
D6	Reduces wastage of resources in my enterprise					
D7	Reduces costs associated with defective products					
	Efficiency on Quantity	**SA**	**A**	**N**	**D**	**SD**
D8	Helps exploit new opportunities for enterprise growth					
D9	Enables my enterprise increase sales					
D10	Improves employee productivity in my enterprise					
D11	Helps attract new customers to my enterprise					
D12	Helps increase profits in my enterprise					
D13	Enables my enterprise to open other branches					
	Efficiency on Quality	**SA**	**A**	**N**	**D**	**SD**
D14	Improves my enterprise customer services					
D15	Provides my enterprise with competitive advantage					
D16	Improves communication with my customers					
D17	Enhances customer satisfaction of my clients					
D18	Facilitates interactions with business partners					
D19	Enhances my business brand					
D20	Helps reduce enterprise risks and uncertainties					
	Efficiency on Time	**SA**	**A**	**N**	**D**	**SD**
D21	Real-time operations in my enterprise					
D22	Access to timely information services					
D23	Submit government regulatory information promptly					
D24	Communicate promptly with my partners					
D25	Manage punctuality and absenteeism among employees					
D26	Manage operations cycle time					

E. Comments

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……

……

END

Appendix III: Initial Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	82	1541.781	584	.000	2.640
Saturated model	666	.000	0		
Independence model	36	4320.088	630	.000	6.857

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.110	.683	.638	.599
Saturated model	.000	1.000		
Independence model	.293	.307	.268	.291

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.643	.615	.744	.720	.740
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.927	.596	.686
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	957.781	845.268	1077.935
Saturated model	.000	.000	.000
Independence model	3690.088	3485.494	3902.033

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	6.762	4.201	3.707	4.728
Saturated model	.000	.000	.000	.000
Independence model	18.948	16.185	15.287	17.114

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.085	.080	.090	.000
Independence model	.160	.156	.165	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	1705.781	1737.551	1987.346	2069.346
Saturated model	1332.000	1590.031	3618.859	4284.859
Independence model	4392.088	4406.036	4515.702	4551.702

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	7.481	6.988	8.008	7.621
Saturated model	5.842	5.842	5.842	6.974
Independence model	19.264	18.366	20.193	19.325

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	95	99
Independence model	37	38

Appendix IV: Final Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	50	163.110	137	.063	1.191
Saturated model	190	.000	0		
Independence model	19	1879.536	171	.000	10.991

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.065	.930	.903	.678
Saturated model	.000	1.000		
Independence model	.319	.426	.363	.384

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.913	.892	.972	.981	.985
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.819	.736	.795
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	49.536	17.554	89.588
Saturated model	.000	.000	.000
Independence model	1708.536	1572.851	1851.623

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.831	.217	.077	.393
Saturated model	.000	.000	.000	.000
Independence model	8.244	7.494	6.898	8.121

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.029	.023	.053	.989
Independence model	.209	.201	.218	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	289.536	299.151	461.222	511.222
Saturated model	380.000	416.538	1032.407	1222.407
Independence model	1917.536	1921.190	1982.777	2001.777

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.270	1.130	1.446	1.312
Saturated model	1.667	1.667	1.667	1.827
Independence model	8.410	7.815	9.038	8.426

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	203	219
Independence model	25	27

Appendix V: Letter of Authority

MOI UNIVERSITY
SCHOOL OF HUMAN RESOURCE DEVELOPMENT
DEANS OFFICE

P.O. Box 3900
ELDORET
KENYA.

Fax 254-053-43153/43620 Ext.434

REF: MU/SHRD/PG/77

23rd July, 2015

TO WHOM IT MAY CONCERN

RE: DAVID SERGON CHESIRE – SHRD/DE/01/13

The above named is a Ph.D student at Moi University, School of Human Resource Development, Department of Entrepreneurship and Quantitative Skills. He has completed his coursework and successfully defended his proposal titled **"Entrepreneurial Environment and Enterprisers' Attributes on Technology Adoption in the Entertainment Sector in Nakuru Town, Kenya.**

It is a requirement of his Ph.D Studies that he conducts research and produces a Thesis. Having defended his proposal successfully, he has been cleared by the School to proceed to the field and collect data.

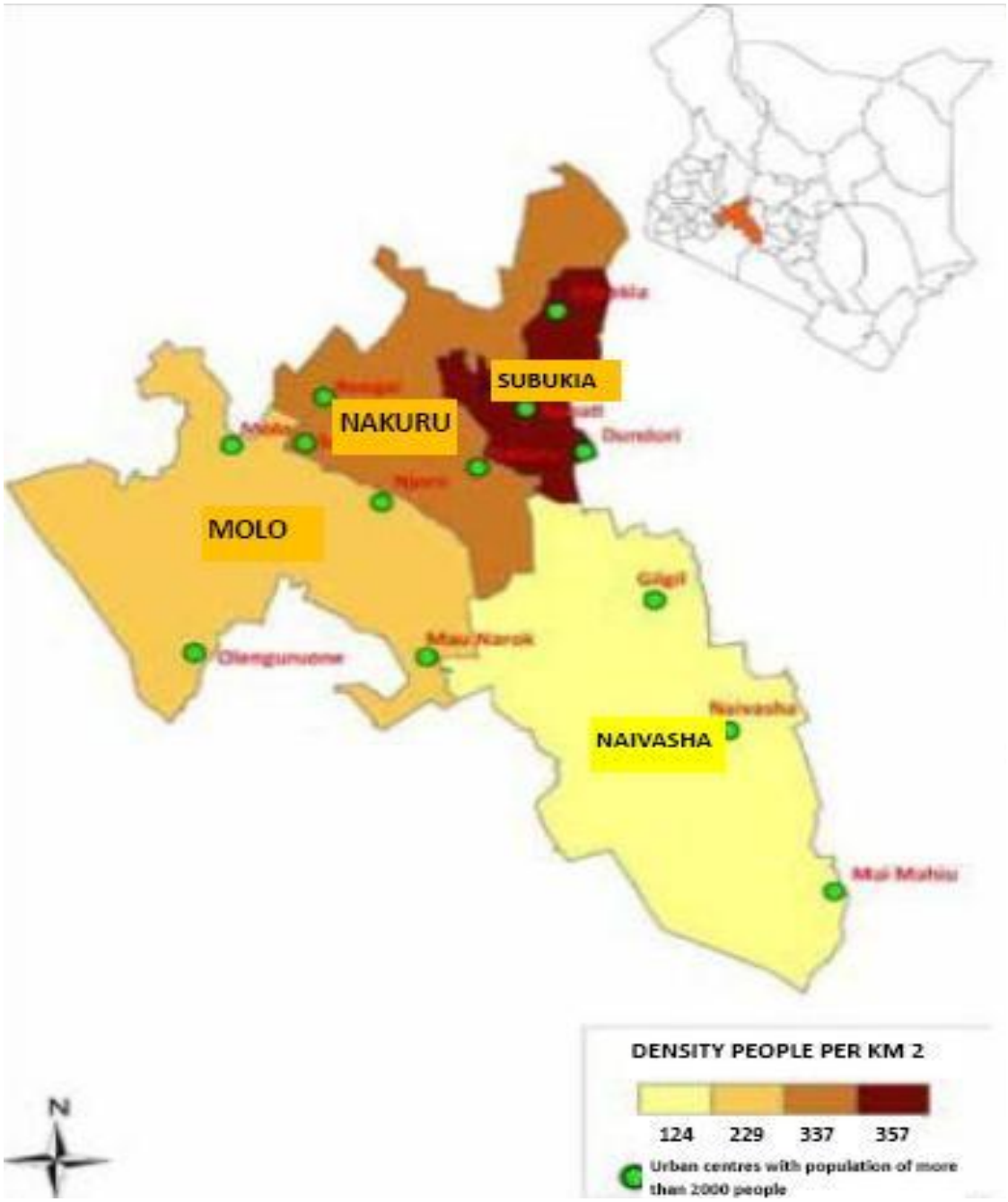
Any assistance accorded to him will be highly appreciated.

DEAN

DR. RUTH J. TUBEY
DEAN, SCHOOL OF HUMAN RESOURCE DEVELOPMENT

/mc

Appendix VI: Nakuru County



Appendix VII: Research Permit

THIS IS TO CERTIFY THAT:
MR. DAVID SERGON CHESIRE
of MOI UNIVERSITY, 5965-30100
ELDORET,has been permitted to conduct
research in *Nakuru County*

on the topic: *ENTREPRENEURIAL ENVIRONMENTAL EFFECTS ON ENTERPRISE EFFICIENCY THROUGH TECHNOLOGY ADOPTION: A STUDY OF ENTERTAINMENT SECTOR IN NAKURU TOWN, KENYA.*

for the period ending:
7th June,2017

.....
Applicant's Signature

Permit No : NACOSTI/P/16/56508/10832
Date Of Issue : 8th June,2016
Fee Recieved :ksh 2000

.....
Director General
National Commission for Science, Technology & Innovation