MAKERERE UNIVERSITY

MAKERERE UNIVERSITY BUSINESS SCHOOL

MARKETING INNOVATION, NETWORKING CAPABILITY, ICT ADOPTION AND COMPETITIVENESS OF SMES.THE CASE OF SMALL AND MEDIUM ENTERPRISES IN ARUA CITY

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PLAN A

NOVEMBER, 2023

DECLARATION

I, Adiga Bernard Ngobi declare to the best of my knowledge that, this report is my original work which has never been published and / or submitted for any award in any other University/institution of higher learning.

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APPROVAL

This report has been submitted with our approval as university supervisors and our signatures are appended against the respective names below:

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DEDICATION

I dedicate this work to my lovely dad late William Ajiga and my Uncle Silivesto and Mum Lorina Ajiko for setting good learning foundation for my future. In a special way I also dedicate it to my lovely wife Gladys Maturu, my lovely children Purity, Daisy, Nathan and Amani for the over whelming, comfort, support, guidance and encouragement given to me during the research process. May the almighty God bless you abundantly.

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LIST OF ABBREVIATIONS

B2B:	Business to Business relations
B2C:	Business to Customer relations
BUBU:	Buy Uganda, Build Uganda
COVID-19:	Corona Virus Diesese-2019
ICT:	Information and Communication Technology
ITC:	International Trade Centre
MSE:	Small and Medium Enterprises
MTIC:	Ministry of Trade, Industry and Cooperatives
OECD:	Organization of Economic Cooperation and Development
PSFU:	Private Sector Foundation, Uganda
UBOS:	Uganda Bureau of Standards
UCC:	Uganda Chamber of Commerce
UNCDF:	United Nations Capital Development Fund
WTO:	World Trade Organization

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ABSTRACT

The rapid technological change and market globalization have a great impact on creation of new possibilities for reinforcing the development of small and medium-sized enterprises (SMEs). The SMEs in Arua city are competitively disadvantaged, one in four of them do not use any media based promotion; logistical services are extremely costly, do not embrace flexible payment options, fail to collaborate with competitors and fail to use ICT to manage their transactions. This study was purposed to explore the relationship between marketing innovation, networking capabilities, Information and Communication Technology adoption and competitiveness of small and medium enterprises in Arua city. The researcher issued 296 questionnaires to the 148 small and medium enterprises sampled, 210 were returned from 105 small and medium enterprises. This constituted 70.9% response rate which is a good representation of the whole population as postulated by (Field, 2006). Reliability test of the tools showed that all variables under study were reliable with Cronbach's alpha statistic above 0.70-threshold value suggested by Nunnally, (1978). The findings of the correlation analysis showed a positive significant relationship between marketing innovation and competitiveness. It also indicated positive relationship between network capabilities, Information and Communication Technology adoption and competitiveness, implying that a change in marketing innovation, network capabilities and Information and Communication Technology adoption are associated directly with competitiveness of small and medium enterprises in Arua city. The regression analysis showed that marketing innovation, networking capabilities and Information and Communication Technology adoption had a positive significant influence on competitiveness. The researccer recommended that management should put more emphasis on marketing innovation since it has more predictive power on SME competitiveness than networking capabilities and ICT adoption. This could be done by creating brand awareness, improving distribution networks, offering attractive prices and enhancing communication strategies. Management should also improve their networking capabilities through developing their collaboration, interpersonal relations and partner knowledge aspects. Lastly, the SME`s technological, organizational and environmental contexts should be developed in order to enhance their ICT adoption capabilities to achieve better competitiveness.

CHAPTER ONE
INTRODUCTION

1.0 Background to the study

The rapid technological change and market globalization have a great impact on creation of new possibilities for reinforcing the development of small and medium-sized enterprises (SMEs). Consequently, competitiveness is now recognized as having both local and global dimensions; with articulated national policies currently aiming to ensure a more favorable environment for development of SMEs and their ultimate competitiveness (Gruenbichler *et al.,* 2021). Enterprise competitiveness is the ability to sustain a market position: - by supplying quality products timely; at viable prices; by responding quickly to changes in demand; including managing product differentiation through innovative and effective marketing system (Buganova & Simickova, 2019). Competitiveness is therefore the most important global condition for business prosperity and sustainability in the new economic reality (Ahmedova, 2015).

The advent of Corona Virus Diesese-2019 (Covid-19) pandemic has grossly affected the competitiveness of many enterprises, and the economic ramifications of the pandemic quickly became apparent globally as SMEs became the front lines (Arezki, & Nguyen, 2020). In the European Union and United States, sector data suggests that the pandemic had most impact on SME competitiveness in skins and leather products, footwear and clothing sectors, with decline of 20% or more in exports of such goods (Baldwin & Tomiura, 2020). In sub-Saharan Africa, two out of three SMEs have had their competitiveness strongly affected by COVID-19, mostly involving reduced sales and/or difficulty in accessing inputs due to disruption of the supply chain linkages (WTO, 2021). Meanwhile in Uganda, most SMEs are not competitive as they have fragile and relatively low cash flow coverage; with 85% of them financially distressed and about 50% of

the informal businesses getting out of business just within one month (OECD, 2021). Sector-wise, the businesses whose competitiveness were hardest hit in Uganda include culture and entertainment; hospitality; transport and communication; trading and services (UNCD, 2020). The pandemic also has a big toll on Arua city`s SME businesses and ultimately crippling their competitiveness (UNCD, 2020). Extant literatures suggest that marketing innovation (Sipa *et al.,* 2014) and networking capability (Dhameria *et al.,* 2021) mediated by technology adoption (Trawnih *et al.,* 2021) could influence entity competitiveness.

Marketing innovation is an iterative process initiated by the perception of unmet customers' needs which require the development, production, and marketing of an offering addressing this opportunity (Grimpe *et al.,* 2017). It was derived from technology adoption model which attempts to explain the concept of accepting or rejecting the use of information technology to perform organizational tasks (Davis, 1989). Marketing innovation remedies the threats caused by disruption and relentless technological changes, thereby improving the competitiveness of organizations (Csapi & Balogh, 2020).

Networking capability is how companies identify and exploit market opportunities so that they are able to work together, solve problems and facilitate the development of company products (Mitrega *et al*., 2012). It is developed from competition network theory which conceptualizes a firm as a discrete entity that forms competitive ties with other firms (Gulati *et al,* 2000). SMEs use industry network capabilities to obtain expertise on marketing in order to enhance their competitiveness (Sanyal, Hisam & Baawain, 2020).

Technology adoption refers to the acceptance, integration and use of new technology in a society that follows several stages, usually categorized by groups of people who use that technology

(Mohammad & Sulphey, 2020). Technology adoption approaches include technology, organization and environment that help improve organizational competitiveness in the market (Trawnih *et al.,* 2021).

The Government of Uganda has put in place support policies to promote SMEs competitiveness. These include: - deliberate build Uganda buy Uganda (BUBU) policy to influence use of local contents- a market expansion strategy; financial support; product quality certifications bodies like National Bureau of Standards ; revival of cooperative structures and providing favorable business environment (MTIC, 2020). Despite these interventions, the SMEs in Arua city have largely remained uncompetitive as: - a number of them apply old techniques for promotion, distribution and pricing of products and services; have narrow scope of collaboration, with many still lacking proper interpersonal relations, partner knowledge and low adoption of digitalization (UCC, 2020). This bizarre state of the SME competitiveness in Arua city has devastating consequences on the economy and needs to be addressed.

1.2 Statement of the problem

Although government of Uganda has put in place good measures and policies for establishing and sustaining SME businesses (MTIC, 2020), the SMEs in Arua city are competitively disadvantaged, as evidence shows that:- one in four of them do not use any media based promotion; logistical services are extremely costly especially to agriculture; 80% of them do not embrace flexible payment options (UCC, 2020); about 60% see collaboration and partnering with competitors as surrendering to competitors (PSFU, 2021); and just about 10% use ICT to process their accounting and finance information needs (SME Competitive Survey, 2021). This peculiar competitiveness status quo has brought discomfort among key stakeholders. Although extant literatures suggest that competitiveness has relationship with marketing innovation and networking capability

(Gruenbichler *et al.*, 2021), no local study has explored the extent of the relationship. It is on this basis that the researcher attempts to explore the relationship between: marketing innovation, networking capabilities, ICT adoption and competitiveness of SMEs in Arua city.

1.3 Purpose of the study

The purpose of this study was to explore the relationship between marketing innovation, networking capabilities, ICT adoption and competitiveness of SMEs in Arua city.

1.4 Objectives of the study

i. To establish the relationship between marketing innovation and competitiveness of SMEs in Arua city.

ii. To examine the relationship between networking capabilities and competitiveness of SMEs in Arua city.

iii. To assess the mediation effect of ICT adoption on marketing innovation and competitiveness of SMEs in Arua city

iv. To assess the mediation effect of ICT adoption on networking capabilities and competitiveness of SMEs in Arua city

v. To explore the combined effect of marketing innovation, network capabilities and ICT adoption on competitiveness of SMEs in Arua city.

1.5 Research questions

The study sought to answer the following questions.

i. What is the relationship between marketing innovation and competitiveness of SMEs in Arua city?

ii. What is the relationship between network capabilities and competitiveness of SMEs in Arua city?
iii. What is the mediation effect of ICT adoption on marketing innovation and competitiveness of SMEs in Arua city?
iv. What is the mediation effect of ICT adoption on network capabilities and competitiveness of SMEs in Arua city?
v. What is the combined effect of marketing innovation, network capabilities and ICT adoption on competitiveness of SMEs in Arua city?

1.6 The scope of the study.

1.6.1 The subject scope

The subject scope was about marketing innovation, networking capabilities, ICT adoption and SME competitiveness.

1.6.2 The geographical scope

The study was carried out in Arua city`s down town business center, comprising of Arua Hill and River Oli divisions (Arua City Commercial Office report on business establishments, 2020). The researcher preferred these divisions because they have the highest concentration of SMEs in the city.

1.6.3 Time scope

The study was carried out from October to November 2022.

1.7 The significance of the study

This study would benefit the following category of people:

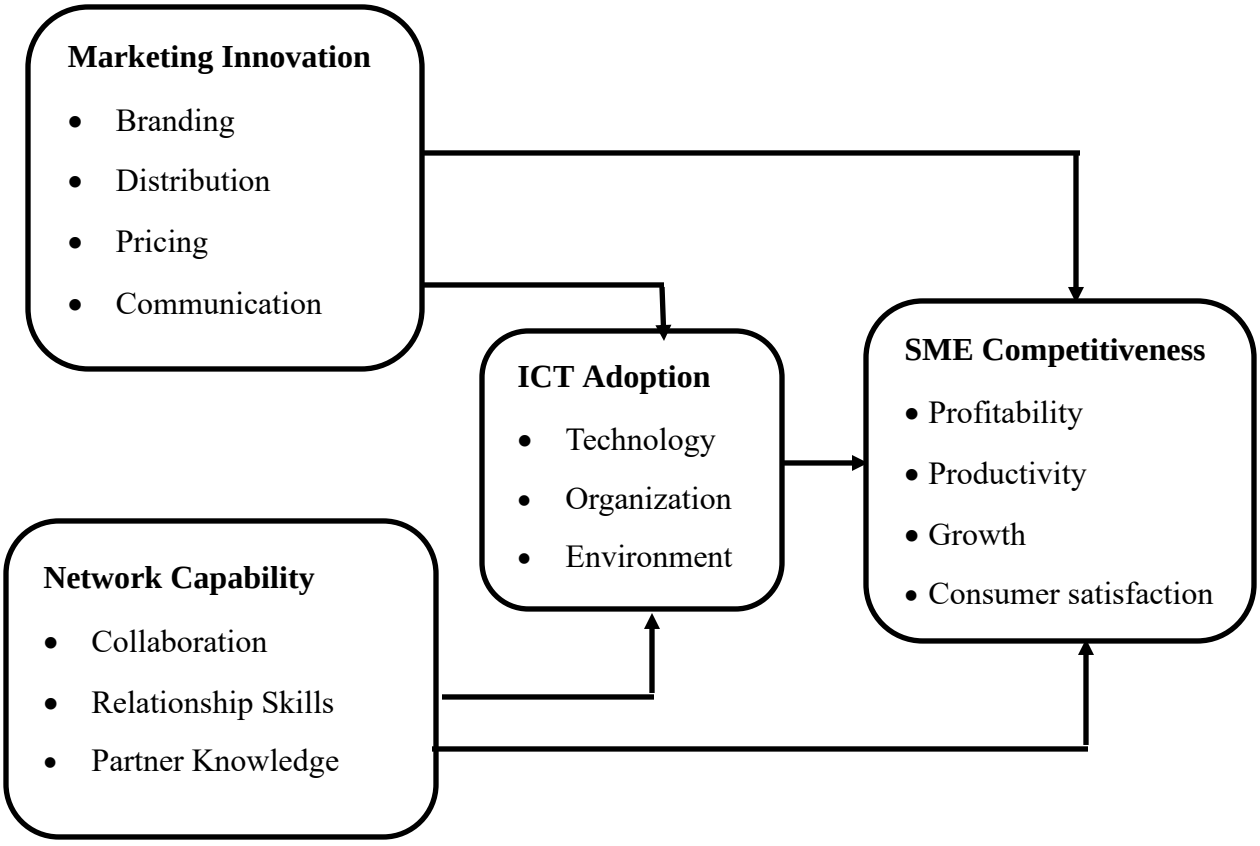
i. Policy makers and technocrats would use the report to come up with sound and appropriate strategies to address gaps in SME competitiveness.

ii. The various stakeholders including business owners, financial institutions and both active and potential entrepreneurs would find the report useful for improving the competitiveness of their enterprises.

iii. The findings of the study would add value and help in filling the gap of knowledge and compliment to other research works done along marketing innovation, networking, ICT adoption and entity competitiveness.

1.8 Conceptual frame work of marketing innovation, network capability, ICT adoption and SME competitiveness

Figure 1: Conceptual framework



***Source**: Adapted from Sipa et al. (2014); Dhameria et al. (2021); Trawnih et al (2021): Wisenthige & Guoping (2016).*

Figure 1 shows the relationships between: - marketing innovation and competitiveness; network capability and competitiveness; marketing innovation, ICT adoption and competitiveness; network capability, ICT adoption and competitiveness; marketing innovation, network capability, ICT adoption and competitiveness of SMEs. In the conceptual frame work, it was assumed that: - marketing innovation influences competitiveness; network capability has an effect on competitiveness. Lastly, combining marketing innovation and network capability with an appropriate ICT adoption technique could have significant influence on competitiveness of SMEs.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, the researcher reviews literature on the study variables, theoretical underpinning and relationships that exist between the study variables guided by the study objectives.

2.1 Theoretical Framework

2.1.1 Technology Acceptance Model (TAM)

Technology acceptance model was developed by Davis (1989), who sought to predict and explain information and communication technology (ICT) usage behavior of potential adopters. The model attempts to explain the concept of accepting or rejecting the use of information technology to perform organizational tasks. It is premised on the perceived usefulness, which is the degree to which a person believes that using a particular system would enhance job performance and the perceived ease of use of ICT would make users to be free of effort (Davis, 1989). The model can positively influence the usage of ICT in developing a dependable marketing innovation that ultimately increases organization`s competitiveness.

2.1.2 Competition Network Theory

The competition network theory was proposed by Doven Lavie in 2006, as an extension of resource based-view in order to incorporate the network resources of interconnected firms (Lavin, 2006). According to the theory, a firm`s performance is expected to decline with the intensity of its competitive relations, yet mutual forbearance that emerges due to multimarket contact can mitigate this effect (Lavin, 2006). In turn, the centrality of the firm`s competitors in their competition networks could enhance the firm`s performance. It conceptualizes a firm as a discrete entity that

forms competitive ties with other firms (Lavie, 2021). In addition, a competitive relation can correspond to a firm and its competitor's common operations in various industries, thus cutting across industry boundaries (Downing, Kang & Markman, 2019). The theory helps organizations to mitigate the effect of intense competition, by building mutual tolerance through multiple-market contacts (Thantchenkery & Katila 2021). The theory could therefore help inform SME managers on building network capabilities in order to improve their competitiveness.

2.2 SME Competitiveness

Over the last decade, trade globalization and liberalization have significantly increased customer expectations to create synergies for enhancing entity competitiveness. Firm level competitiveness is the ability to deliver goods and services at the time and place, and in the form sought by buyers, while lowering the cost of production, providing superior value and higher returns on investment (Jiang, Jin & Ren, 2017). Basu (2011) defines competitiveness as a multidimensional and complex concept that attempts to capture the process of fit between the firm and its dynamically evolving environment. It can then be described as enterprise`s renewed ability and capacity to fulfill the needs of their customers more efficiently than their competitors. These definitions suggest that measuring a firm`s competitiveness should incorporate quantitative and qualitative indicators, thus for this study, it would be assessed using profitability, productivity, growth (Wisenthinge & Guoping 2016), and market share (ERDF, 2022).

Profitability refers to a measure of an organization`s profit relative to its expenses (Csapi & Balogh, 2020). It reveals the firm`s ability and capacity to generate earnings at a rate of sales, level of asset and capital in a specific period of time (Jiang, Jin & Ren, 2017). It can be assessed in terms of net profit margin- ratio of net profit to sales and return on investment (Csapi & Balogh, 2020). Profitable firms create value; hire competent people; tend to be more aggressive in modernizing

processes through innovation and technology adoption; and contribute effectively in improving firm`s competitiveness (Blandinieres, 2017).

Productivity can be understood as the ability to transform the inputs used in the production process into products, measured by the efficiency of production (Dresch, Collatto & Lacerda, 2018), which is a comparative measure that represents the use of resources. It is expressed as a ratio of an aggregate output to a single input or an aggregate input used in a production process and includes labor, material, capital and total productivity. It is therefore, a measure of effectiveness or of how productive means are used to do things the right way (Okumu & Buyinza, 2018). Therefore, SMEs` ability to improve its competitiveness depends almost entirely on its ability to raise its output per input (Okumu & Buyinza, 2018).

Business growth refers to the process of improving some measures of its success that can be achieved by boosting its revenue by greater product sales or increasing profitability by minimizing operation costs (Merwe *et al.,* 2020). According to Dhameria *et al*. (2021), SME`s ability to overcome major challenges of innovation, marketing and strategic alliances can enable it to grow and become competitive (Lee, 2014). Other potential strategies for growth include business modeling, business strategy and sustainable development (Merwe *et al.,* 2020). Also, Wang (2016) assert that older firms experience less severity to financial barrier than newer ones; and as management`s working experience increases, access to finance obstacle decreases and hence their competitiveness improves.

Customer Satisfaction refers to know what the customers' feelings are after they buy products or services and whether specific product or service meets the expectation of customers or not (Khojeh, Mohseni & Samsdi, 2013). It measures how satisfied a customer is with a product, experience, or service (Ghelber, 2020). Acemoglu, Lelarge and Restrepo (2020) observed that a satisfied

customer is always contented with the entity and most likely make repeat purchases that increase sales, profitability, growth and hence competitiveness of the entity.

2.3 Marketing innovation

Marketing innovation has been considered from multiple perspectives in both policy and academic literature. Sharon and Volery (2020) defined marketing innovation as the implementation of new marketing practices involving significant changes in the design, packaging, distribution, promotion or pricing of a product or service. Lee *et al*. (2019) considered it as firm's ability to approach the market effectively, and use the channels of communication to deliver products and services in order to capture customers. It can therefore be regarded as the development of new marketing techniques to better serve the changing needs of customers. The development of new marketing tools and methods of gathering consumer information through innovative marketing programs and technologies have enabled firms to reach consumers more effectively, thus improving their competitiveness (Sijabat, Nimran, Utami & Prasetya, 2020). The marketing innovations to be considered in this study will comprise of branding, distribution, pricing and communication (Sipa *et al.,* 2014).

Branding is the process of creating a strong, positive perception of a company, its products or services in the customer`s mind by combining such elements as logo, design, mission statement, and a consistent theme throughout all marketing engagements (Bortoluzzi et al., 2018). It allows ownership of an invention; adds credibility; legitimately enhances visibility; and supports communication (Cruz *et al*., 2017). Successful branding ensures that entity products and services are made, sold, advertised and discussed in a way that profoundly affects consumers in the head and the heart that ultimately enhances marketing innovation (D`Antone *et al.*, 2017).

Distribution channel represents a chain of business intermediaries such as: - direct sales; whole sellers; retailers; distributors and internet, through which the final buyer purchases the goods or services (Riswanto *et al*., 2020). Innovations in distribution channels include: - use of electronic intermediaries; electronic buying; online deliveries; multi-channel retailing through Omni-channel systems and manufacturers providing customized product solutions and offerings (Elliot, Ngugi & Malgwi, 2018). Innovations driven by forces around IT, technical advancement, globalization, customer behavior and regulations have fundamentally reshaped the trade and distribution systems (Sijabat *et al.*, 2020).

An innovative pricing strategy focuses more on B2C rather than B2B context and the possible avenues for innovation in B2C pricing include bundling, individualized pricing, flat fee, creative discounting techniques (e.g., steadily decreasing discounts whereby discounts are gradually phased out), and participative pricing mechanisms e.g., 'Name your own price' (Lee, Lee & Garrett, 2019). Innovation around pricing strategies improves customer satisfaction, organizational profitability and competitiveness (Hinteregger, Durst, Temel & Yesilay, 2019).

Communication developments such as online social networks, blogs, and product rating web-sites, discussion forums, video sharing sites, and mobile devices have opened up opportunities to influence customers' attitude, both in the B2C and B2B context (Cruz, Garzon & Mas-Tur, 2017). These innovations have enabled marketers to reach customers through new touch points and enable them achieve market research, customer relationship management and most importantly sales promotions (Burki & Dahlstrom, 2017).

2.4 Networking capabilities

In order to improve and remain competitive, enterprises need to have good networking capabilities (Mu & Di Benedetto, 2012). A networking capability refers to the competence strategies that

support the company to access strategic network resources and obtain their expertise and mysterious knowledge for collective advantages (Dhameria *et al*., 2021). Mitrega (2012) defines it as the ability to communicate with other individuals/organizations that entails all activities, processes, systems and habits in primary utilization of business performance. It can therefore be described as the competence of entities to identify and exploit market opportunities for working together in order to solve problems and facilitate their product development. For SMEs to remain competitive in global markets, they have to actively participate in networks and cooperate with each other or with large enterprises or a combination of the two (Kurniawan *et al.*, 2020). For the interest of this study, the networking capabilities considered will be collaboration, interpersonal relations and partner knowledge (Dhameria *et al*., 2021).

Collaboration is a working practice that enables individuals work together to achieve a defined and common business purpose. It can be defined as the actor's capability to build and manage network relationships based on mutual trust, communication and commitment (Blomquist & Levy, 2006). As a concept, it underlines the relational perspective and enables knowledge creation in a risky and uncertain environment. It can be used to find vendors, customers, dealers and other resources and plays critical role in internationalization of SMEs (Sanyal *et al*., 2020).

Interpersonal relation is a social connection or affiliation between two or more people that may include your partners, close friends, acquaintances and many others (Kurniawan, Budiastuti, Hamsal & Kosasih, 2020). Effective networking is dependent on interpersonal skills such as: - negotiation skills; teamwork and social skills; organization and coordination skills; communication skills; as well as the ability to establish contacts in multicultural environments, the ability to discuss with others, and understanding the perspectives of others (Kekkonen &

Almonkari, 2015). Interpersonal relations are critical in creating and maintaining social networks that enhance innovation, growth and competitive advantage of SMEs (Kurniawan *et al.,* 2020).

Partners' knowledge is defined as the systematized and arranged information about the partner firms (Dhameria *et al*., 2021). This information is helpful in understanding the potential strengths and weaknesses of each prospective partner (Malhotra *et al.,* 2005). Prior knowledge of partners could reduce the number of unnecessary disputes and helps in avoiding partnering with the incompatible partners; and can enable the partnering firms to recognize their resources and capabilities to fulfill their needs for attaining competitive targets (Nicholas, Kwanya & Nwandu, 2020).

2.5 Mediating role of ICT adoption

In this study, the term ICTs refers to the use of internet enabled applications via desktop or mobile computing devices to boost business performance (Francis and Willard 2016). Meggiolaro (2018) defines it as the choice an individual entity makes to accept or reject a particular innovation and the extent to which that innovation is integrated into the appropriate context. There is a widely accepted consensus that if SMEs harness ICTs, it is likely to improve performance, growth and sustainability for more inclusive employment, increased mobility, ability to organize customer information and improved inter-connectedness to other microenterprises (Nguyen *et al.,* 2020). The readiness of SMEs for adopting ICT will depend on technological, organizational and environmental contexts of the technologies (Trawnih *et al*., 2021).

Technological context for ICT adoption includes: - the relative advantage that relates to how an individual views the innovation over the existing technologies, which is a key determinant of technology adoption (Powelson, 2011). Compatibility of the technology is an essential factor for

effective technological innovation as it makes it either consistent with the organization's systems or disrupts it, in which case SMEs could resist its implementation (Wang *et al.,* 2016). Complexity in implementation and use of technology affects its diffusion, as confidence and experience in its use would likely make the implementation easy, while most SMEs with little or no experience could resent (Religia *et al.,* 2021).

Organizational perspectives for ICT adoption among SMEs include: - employee expertise, perception of cost and top management support (Trawnih *et al*., 2021). Knowledge with regard to information technology, availability of funds, enlisting top management provision are crucial for the adoption of ICT (Sugandini *et al.,* 2020), as senior managers are the ones to influence subordinates through provision of vision, resources, and cognitive support (Abed, 2020).

Environmental context relates to external factors whose support is necessary for the survival and growth of a business and include forces from government, uncertainties from customers, suppliers, business associates, and competitors who influence SMEs to implement new ICT platforms (Trawnih, *et al*., 2021). Government policies are crucial as they are designed to protect consumers and organizations against the threat of cybercrimes and by creating enabling environments (Sugandini *et al.,* 2020). Availability of relevant infrastructures and operating standards promote the adoption of technology (Itliong, 2020).

2.6 Marketing Innovation and Competitiveness of SMEs

Presently, marketing innovation has emerged as an effective tool to cope with entity competitive challenges. Extant literature has recommended exploring the mechanism and conditional boundaries for the significant effect of marketing innovation on competitiveness (Sipa *et al*., 2014), and here below are some of the studies:

To begin with, Ungerman, Dedkova & Gurinova (2018) attempted to identify the impact of innovative marketing on enterprises' competitiveness in the context of industry, and they empirically confirmed that innovative marketing is a significant factor in determining enterprise competitiveness. Secondly, Suraksha (2016) conducted research showing the link between marketing innovations in an enterprise and the competitiveness of its brand. The study result showed a strong link between marketing innovation and competitiveness. Similarly, Olazo (2021) measured the role of marketing innovation to sustainable competitive advantage of the SMEs, and found that there is a significant relationship between marketing innovation and sustained competitive advantage of the firm. Furthermore, Gupta *et al*. (2016) administered a study determining the correlation between unique marketing in an industry and a growth in the competitiveness of a firm. The findings indicate that effectiveness of a firm`s market has positive and strong correlation with its competitiveness in the industry. Also, in a study conducted by Kamp and Parry (2017), they confirmed that improved and unique marketing techniques have a purposeful influence on increasing revenue, decreasing outlays and so improving the effectiveness of the firm. Additionally, Wang (2016) established that an enterprise is better at meeting customer needs in terms of product functionality, quality and service life; which makes the enterprise more competitive.

2.7 Networking Capabilities and Competitiveness of SMEs

The relevance of network capabilities in supporting firm competitiveness has attracted extant literature to recommend further inquiry into their association. Here below are some of the studies regarding these relationships.

Swierczek (2019) sought to elaborate on the competitive advantage using the perspective of networking characteristics such as: - network size, its density, intensity, reciprocity, heterogeneity, and centrality. The study result shows that most of these characteristics have positive impact on the competitive advantage of supply chains. Secondly, Hasyim and Pudyastuti (2020) examined the effect of entrepreneurial orientation strategy as an independent variable, and network ability as intervening variable on the competitive of SMEs in Indonesia. The research findings show positive effect of: - entrepreneurial orientation on networking; and networking on competitiveness. On their part, Shah *et al.* (2019) examined the role of networking capability (NC) using four dimensions i.e., coordination (CO), relational skills (RS), partner's knowledge (PK), and internal communication (IC) on a firm`s survival using strategic renewal (SR) as mediating role. The results proved that CO, RS, PK, and IC have significant positive impact on survival; while SR also has strong mediating effect on the relationships between NC and organizational survival. Meanwhile, Cordova (2017) carried a literature review about networks and strategies, in order to understand how they can help to secure a firm's strategy; the review outcome shows that networks are responsible for providing firm`s strategies including firm`s competitiveness.

2.8 Marketing Innovation, ICT Adoption and Competitiveness of SMEs

In their study to ascertain the impact of social media usage and marketing innovation on firm competitiveness, (Shawky *et al.*, 2019) established significant positive relationship between marketing innovation based on social media and competitive advantage. Similarly, in examining the relationship between marketing innovation, social media, competitiveness and performance, (Tajeddini & Ali, 2020) established that business-level networking by use of ICT empowers creation of innovative product offerings to gain competitive advantages, and achieve superior business performance. In another study to observe the impact of innovation and ICT adoption on

firm performance, Ferreira, Fernandes, and Ferreira (2018) found that product innovation mediates the influence of social media adoption on the company's performance. More so, Foltean *et al.* (2018) assessed the relationship between marketing innovation, social media and firm performance and recognized that: - marketing innovation has fair; social media has poor; and innovation through social media has strong and positive relationships with performance. This confirms that social media itself could not directly enhance firm performance.

2.9 Network Capabilities, ICT adoption and Competitiveness of SMEs

Varadarajan (2020) attempted to establish the relationship between networking and social media usage on business performance and the result indicates that there is a strong relationship between networking through social media and performance. In another study to examine the relationship between social media, networking and firm performance, Choi, Han, & Kwak (2021) found out that social media adoption and firm performance is mediated by business networking quality. Similarly, Ahmad *et al*. (2019) in attempt evaluate the link between network working, social media and firm competence of SMEs in the UAE context, verified that firm competence was enhanced via social media adoption as it facilitated the communication and commitment among network partners.

2.10 Marketing Innovation, Network capabilities, ICT adoption and Competitiveness of SMEs

Dhameria *et al*. (2021) investigated variables such as networking capability, entrepreneurial marketing, competitive advantage, marketing performance of SMEs in Indonesia. Results indicate that: - entrepreneurial marketing creates competitive advantage through marketing innovation to achieve performance; network capability and entrepreneurial marketing significantly influence competitive advantage of SMEs; and networking capability, entrepreneurial marketing, and

competitive advantage significantly influence marketing performance of SMEs. Also, Olazo, (2021) measured the mediating role of marketing innovation to marketing competence and competitive advantage of the SMEs. The results show: - a significant relationship between marketing competence, marketing innovation, and competitive advantage of the firm; and marketing innovation significantly mediate the relationship between marketing competence and competitive advantage. Furthermore, Munaa *et al*. (2022) examined the influence of social media use on networking and product innovativeness of SMEs. The results indicate that, while the direct link between social media adoption and firm performance is not significant, this path is fully mediated through networking and product innovativeness. In the same vein, Chuang (2020) confirmed that active engagement of a firm with social media has positive and significant impact on the firm`s brand image; product innovation; market share; and competitiveness.

2.11 Summary of Literature Review and Knowledge Gap

A significant positive association between marketing innovation, network capability, ICT adoption and competitiveness were established from various studies reviewed. However, it was ascertained that: - none of the studies using the two predictor variables-marketing innovation and networking through ICT adoption to predict competitiveness was conducted in Arua city. It was in the interest of bridging this knowledge gap that the researcher attempts to explore the relationship between: marketing innovation, networking capabilities, ICT adoption and competitiveness of SMEs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter represents the research methods that were used to carry out the study, the survey population, sampling design, data sources, data collection instruments, the procedure to ensure validity and reliability, measurement of the variables and data analysis. The study also highlights ethical considerations.

3.1 Research design

Research design is the blueprint for conducting the study that maximizes control over factors that could interfere with the validity of the findings (Shukla, 2020). The researcher used cross-sectional research design with quantitative approach to explore the relationship between the variables. This research design was preferred because it allows collection from many different individuals for descriptive and correlational analysis at a single point in time.

3.2 Study population

Ram (2010) refers to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. The researcher targeted a population of 31 public and large private for-profit health providing facilities in Arua city (West Nile Web, 2021) as unit of analysis.

The researcher targeted a population of 237 (Arua hill division, 209; Oli division, 28) licensed SMEs from the city`s two divisions (Arua City Commercial Office report on business establishments, 2020). These two divisions were preferred for the study due to the high concentration of SMEs in them compared with the rest.

3.3 Sample Size

A sample is a subset of a population selected to participate in the study, it is a fraction of the whole, selected to take part in the research project (Borwankar, 1995). A sample of 148 SMEs were picked from the target population in accordance with Krejcie & Morgan (1970) table. This table is preferred for this study because it simplifies the process of determining the sample size for a finite or known population.

3.4 Sampling Technique

The researcher first used probability sampling method, whereby the population was stratified into the two-city divisions and; then names of all the SMEs were written on pieces of paper, folded and placed in two large boxes according to the division stratum. From each box or stratum, a sample was randomly picked in appropriate proportions per division. Respondents consisting of the SME owner/manager and accountant/cashier were then picked using non-probability judgment sampling method because of their technical competencies to provide the required information.

3.5 Unit of analysis and unit of inquiry

3.5.1 Unit of analysis

The unit of analysis is defined as the entity you wish to say something about at the end of your study, and is considered the focus of the study the major entity that one analyses in a study (Singh, 2019). The unit of analysis for this study was therefore the SMEs operating in Arua city.

3.5.2 Unit of inquiry

The unit of inquiry, sometimes referred to as the unit of observation or unit of measurement is defined statistically as the items that you observe, measure or collect while trying to learn something about your unit of analysis (De Carlo, 2021). The unit of inquiry designed for this research consisted of the owner or manager and the accountant or cashier of the SME. Thus, a total

of 296 (148 x 2) people, involving 148 owners/managers and 148 accountants/cashiers formed the unit of inquiry for the study. Arua Hill division had 261(209/237*296) respondents, while Oli division had 35(28/237*296).

3.6 Data Sources

The researcher used primary source data which is that kind of data that has been gathered for the first time, it has never been reported anywhere (Akhtar, 2016). In this study, primary data was obtained through the use of self-administered questionnaires, which comprised series of written items which the individuals were expected to respond to by ticking the ones they consider appropriate (Boru, 2018). The researcher picked introduction letter from Makerere University Business School and present it to the SMEs for seeking permission to administer the questionnaire.

3.7 Data collection instrument

The researcher used closed ended questionnaire of five (5) point Likert scale, ranging from 1= strongly disagree to 5= strongly that was designed according to the study variables to collect data from the respondents. An odd Likert scale was preferred to cater for the interest of neutral respondents for gathering more accurate data without bias.

3.8 Measurement of research variables

Competitiveness was measured using profitability, productivity, growth and customer satisfaction (Wisenthige & Guoping, 2016; OECD, 2021). Branding, distribution, pricing and communication were used to measure marketing innovation (Sipa *et al.,* 2014); while networking capability was measured by collaboration, relationship skills and partner knowledge (Dhameria *et al*., 2021). ICT adoption as mediating variable was measured using technical, organizational and environmental

perspectives (Trawnih *et al.*, 2021). The respondents score on a Likert scale of 1 to 5 from strongly agrees to strongly disagree.

3.9 Validity and Reliability

3.9.1 Validity

According to Taherdoost (2016), validity explains how well the collected data covers the actual area of investigation. It principally involves face validity-that evaluates appearance of the questionnaire in terms of feasibility, readability, consistency of style format and clarity of language; and content validity- which evaluates instrument to ensure it includes only essential elements in a particular construct domain (Choudrie & Dwivedi, 2005). Validity was done by having impartial questions included in the questionnaire and by pre-testing the instrument to identify and change any ambiguous, awkward, or offensive questions and techniques. Expert opinion, to improve instrument validity especially from supervisors was significant in this regard.

3.9.2 Reliability

Reliability concerns the extent to which a measurement of a phenomenon provides stable and consistent results (Taherdoost, 2016). Testing for reliability to ensure consistency across the parts of the measuring instrument is vital. The commonly used internal consistency measure when using Likert scale is the Cronbach Alpha coefficient (Carmines & Zeller, 1979). The researcher used test re-test technique to estimate the reliability of the instruments and measured it using the Cronbach coefficient. No absolute rule exists for internal consistencies; however, most researchers agree on a minimum internal consistency coefficient of 0.7 (Taherdoost, 2016).

Table 1: Reliability Results

	Cronbach's Alpha	Number of Items
Marketing innovation	0.727	24
Networking capabilities	0.736	18
ICT adoption	0.747	18
Competitiveness	0.769	24

Source: Primary Data

The results in Table 1 above show that the items measuring each of the main variables in the study were reliable. This is so because the associated Cronbach alpha statistic is above the threshold of 0.7 according to (Nunnally, 1970). This implies that administration of the questionnaire several time, would yield consistent results.

3.10 Data Processing and presentation

All the variables in the quantitative data were coded and entered into the computer using the statistical package for social scientists (SPSS) version 20 software for analysis. Demographic data was analyzed using percentages and descriptive analysis was presented in terms of mean and standard deviation. Correlation analysis was used to analyze results for objectives one and two, while for objective number three, four and five, multiple regression or sum of least squares method was used to determine the relationships between: - marketing innovation, ICT adoption and competitiveness; network capability, ICT adoption and competitiveness; and market innovation (M), network capability (N), ICT adoption (I) and competitiveness (Y). It was in the form: $Y= \beta o + \beta 1M + \beta 2N + \beta 3I + \alpha.$, where Y represents SME competitiveness being determined; βo the autonomous competition; M, N, I represent the independent variables; β1, β2 & β3 represent regression coefficients; and α represents error (residual) of observations.

3.11 Ethical Considerations

Before administering the questionnaires, the researcher explained the purpose and procedures to be followed in the study. Participants were made aware that participation in the study was voluntary and that they were free to withdraw from the study if they so wish. However, the researcher attempted to make them appreciate the relevance and importance in improving competitiveness of SMEs in Arua city and beyond. The participants were made aware that they were free to ask questions for want of clarifications and that there should be no legal risks associated with the study. They were assured of the integrity and confidentiality regarding the use of information to be obtained.

CHAPTER FOUR

ANALYSIS AND INTERPRETATION OF FINDINGS

4.1. Introduction

This chapter covers analysis, presentation and interpretation of the findings. The results were presented using tables. Frequency distribution tables were used for presenting data on the demographics of the respondents. A correlation matrix was used to present the results of the bivariate correlations between the variables. Regression output tables were used to present the results of regression analysis and a table was used to present the Sobel test output for mediation.

4.2. Response Rate

Out of the distributed 296 questionnaires, two quentionaires were given to each SME out of the 148 SMEs sampled, 210 questionnaires were filled and retruned from 105 SME's. This constituted 70.9% response rate which is a good representation of the whole population as postulated by (Field, 2006).

4.3. Demographic characteristics of the respondents

The demographic features of the respondents consisted of the respondents' characteristics that included; gender, marital status, age, level of education, position held and number of years worked. It also captures the characteristics of the SME which included; type of SME, Sector of the SME, and age of the SME.

Table 2: Gender of Respondents

		Frequency	Percent	Cumulative Percent
Valid	Male	106	50.5	50.5
	Female	104	49.5	100.0
	Total	**210**	**100.0**	

Source: Primary Data

From Table 2, 106 of the respondents were male representing 50.5% of the total of respondents. There were 104 female respondents representing 49.5% of the total respondents. Representing a more or less balanced number of male and female owner/managers and Accountants/Cashiers in the SME's surveyed.

Table 3: Marital Status of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Single	62	29.5	29.5
	Married	141	67.1	96.7
	Widowed	7	3.3	100.0
	Total	**210**	**100.0**	

Source: primary data

62 respondents identified as being single representing 29.5%, 141 identified as being married at 67.1% and 7 identified as being widowed at 3.3%. Meaning most owners/managers and Accountants/Cashiers of the SME's targeted were married people with some level of maturity and responsibility.

Table 4: Age of Respondents

		Frequency	Percent	Cumulative Percent
Valid	25-31	93	44.3	44.3
	32-38	62	29.5	73.8
	39-45	25	11.9	85.7
	46-52	16	7.6	93.3
	Above 52	14	6.7	100.0
	Total	**210**	**100.0**	

Source: primary data

From the Table 4, 44.3 % of the hotel customers fall between 25-31 years of age, 29.5 % of the customers fall between 32-38 years of age, 11.9% of the customers fall between 39-45 years of age, 7.6% fall between 46-52 years of and 6.7% fall above 52 years of age. From the above

statistics, the majority Owners/Managers and Accountants/Cashiers of SME's in Arua City were between 25 -31 years of age.

Table 5: Education level of respondents

		Frequency	Percent	Cumulative Percent
Valid	Secondary	7	3.3	3.3
	Certificate	36	17.1	20.5
	Diploma	77	36.7	57.1
	Degree	87	41.4	98.6
	Post Graduate Studies	3	1.4	100.0
	Total	**210**	**100.0**	

Source: Primary data

From the Table 5, 3.3% of the respondents had secondary education, 17.1% of the respondents were certificate holders, 36.7% were diploma holders, 41.4% were degree holders and 1.4% of them held postgraduate qualifications. Thus, majority of the owners/managers and accountants/cashiers of SME's held a diploma and Degree constituting 78.1%. This education profile indicates that the respondents were educated enough to understand the items of the study and hence provide relevant responses.

Table 6: Position held by the respondents

		Frequency	**Percent**	**Cumulative Percent**
Valid	Owner/ manager	110	52.4	52.4
	Accountant/ Cashier	100	47.6	100.0
	Total	**210**	**100.0**	

Source: Primary data

Table 6 gives a summary of the position held by the respondent. From the above statistics, 52.4% of the respondents reported as being owners/manager who were the majority and 47.6% were

Accountants/Cashier. This imply that their responses in this research are deemed to reflect true picture of their firms position in the competitive environment.

Table 7: Number of years of work

		Frequency	Percent	Cumulative Percent
Valid	Less than 1 year	20	9.5	9.5
	1-3years	66	31.4	41.0
	4-6 years	47	22.4	63.3
	7-9 years	27	12.9	76.2
	Over 9 years	50	23.8	100.0
	Total	**210**	**100.0**	

Source: Primary data

Table 7 gives a summary of how long a particular respondent has been with the SME. From the above statistics, 9.5% of the respondents had spent less than a year in the SME, between 1-3 years were 31.4%, between 4-6 years were 22.4%, and between 7-9years were 12.9%, over 9 years 23.8%. Thus, majority of the respondents had spent between 1-6 years accounting for 55.8%.

Table 8: Category of Small and Medium Enterprises

		Frequency	Percent	Cumulative Percent
Valid	Small	95	90.5	90.5
	Medium	10	9.5	100
	Total	**105**	**100.0**	

Source: Primary data

From Table 8, 95 fell in the category of small accounting for 90.5% and 10 fell in the medium category accounting for 9.5%. Thus, the majority of the businesses represented in the study were small.

Table 9: Type of industry

		Frequency	Percent	Cumulative Percent
Valid	Agribusiness	15	14.3	14.3
	Manufacturing	2	1.9	16.2
	Construction	9	8.6	24.8
	Service	79	75.2	100.0
	Total	**105**	**100.0**	

Source: Primary data

Table 9 represents the type of industry in which the SME's fell in. 14.3% of the SME's were involved in agribusiness, 1.9% were involved in manufacturing, 8.6% were involved in construction and the majority of the SME's were in service industry constituting 75.2%.

Table 10: Age of SME

		Frequency	Percent	Cumulative Percent
Valid	Less than 1 year	6	5.71	5.71
	1-3years	8	7.62	13.33
	4-6 years	18	17.14	30.47
	7-9 years	22	20.95	51.42
	Over 9 years	51	48.57	100.0
	Total	**105**	**100.0**	

Source: Primary data

From Table 10, 5.71% of the SME's were less than a year, 7.62% were between 1-3 years of age, 17.14% were between 4-6 years of age, 20.95% were between 7-9 years of age and 48.57% of them were more than 9 years of age and these were the highest in number. This implies that majority of the SMEs existed for a good number of years and therefore have experienced management in dynamics of SMEs operations in terms of aligning better marketing innovation, network capabilities systems and ICT adoption to enhance competitiveness of SMEs in Arua City.

4.4 Factor analysis

Factor analysis was carried out for the variables that comprised of factors so as to identify their factor structure. The analysis was intended to establish; the hierarchy of significance of the components of the major constructs and to establish the indicators of the constructs that best explain the constructs by virtue of the factor loadings associated with them. Using the Varimax method for principal components measurement, only those factors with an Eigen value greater than 1 were retained according to Guttman-Kaiser rule. The analysis was such that the indicators which either had a loading of lower than 0.5 or cross loaded with other constructs were deleted as such excluded from further analyses.

Table 11: KMO and Bartlett's Test for Marketing Innovation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.858
Bartlett's Test of Sphericity	Approx. Chi-Square	2116.377
	Df	120
	Sig.	.000

From the analysis, the Kaiser –Meyer-Olkin verified that the sample was adequate for Exploratory Factor Analysis i.e. The KMO=0.858 for marketing innovation was above Kaisers recommended threshold of 0.6 (Kaiser, 1974). The Bartlett's test of sphericity for the constructs of marketing innovation had a Chi-square value of (2116.377), 120 degrees of freedom with p =0.000 was significant at 1% indicating that the correlation between items were sufficiently large for conducting Exploratory Factor Analysis (EFA).

Table 12: KMO and Bartlett's Test for Networking Capabilities

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.781
Bartlett's Test of Sphericity	Approx. Chi-Square	902.531
	Df	66
	Sig.	.000

From the analysis, the Kaiser –Meyer-Olkin verified that the sample was adequate for Exploratory Factor Analysis i.e. The KMO=0.781 for networking capabilities was above Kaisers recommended threshold of 0.6 (Kaiser, 1974). The Bartlett's test of sphericity for the constructs of networking capabilities had a Chi-square value of (902.531), 66 degrees of freedom with p =0.000 was significant at 1% indicating that the correlation between items were sufficiently large for conducting Exploratory Factor Analysis (EFA).

Table 13: KMO and Bartlett's Test for ICT Adoption

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.863
Bartlett's Test of Sphericity	Approx. Chi-Square	1550.245
	Df	55
	Sig.	.000

From the analysis, the Kaiser –Meyer-Olkin verified that the sample was adequate for Exploratory Factor Analysis i.e. The KMO=0.863 for ICT Adoption was above Kaisers recommended threshold of 0.6 (Kaiser, 1974). The Bartlett's test of sphericity for the constructs of ICT adoption had a Chi-square value of (1550.245), 55 degrees of freedom with P =0.000 was significant at 1% indicating that the correlation between items were sufficiently large for conducting Exploratory Factor Analysis (EFA).

Table 14: KMO and Bartlett's Test for SME competitiveness

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.873
Bartlett's Test of Sphericity	Approx. Chi-Square	1994.577
	Df	153
	Sig.	.000

From the analysis, the Kaiser –Meyer-Olkin verified that the sample was adequate for Exploratory Factor Analysis i.e. The KMO=0.873 for SME competitiveness was above Kaisers recommended threshold of 0.6 (Kaiser, 1974). The Bartlett's test of sphericity for the constructs of networking capabilities had a Chi-square value of (1994.577), 153 degrees of freedom with p =0.000 was significant at 1% indicating that the correlation between items were sufficiently large for conducting Exploratory Factor Analysis (EFA).

Table 15: Factor Structure of Marketing Innovation

	Branding	Distribution	Communication	Pricing
Our enterprise has a strong brand image	.835			
The enterprise`s logo suits the personality of the brand	.828			
The enterprise`s brand reflects its mission statement	.829			
The enterprise `s brand clearly reflects its history	.821			
The brand image articulates our clients` wants	.865			
Our business is willing to improve the brand identity over a	.710			
Our entity embraces use of electronic intermediaries		.890		
Buying electronically is common in our business		.912		
We make online deliveries in our enterprise regularly		.840		
Our entity has taken customized direct selling seriously		.696		
Value-based pricing is taking root in our firm				.834
Our enterprise charges lower prices for bundles of items than				.811
We participate in discussion forums regarding business			.811	
Our communication channels are accessible to all customers			.713	
Our customers always get one-on-one interface with our sales			.741	
Eigen value8	**8.70**	**3.89**	**1.71**	**1.65**
Variance (%)	**19.0**	**15.43**	**12.65**	**11.00**
Cumulative Variance (%)	**19.0**	**34.34**	**46.99**	**57.99**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 8 iterations.

Results in Table 15 above revealed the factor structure for marketing innovation consists of four significant factors. In their order of importance, they include; branding (Eigen value = 8.70, Variance = 19%), distribution (Eigen value = 3.89, Variance = 15.43%), communication (Eigen value = 1.71, Variance = 12.65%) and pricing (Eigen value = 1.65, Variance = 11%). This implies that all four factors measure marketing innovation by up to 57.99%. The salient features underlying

each of the factors in their order of importance depicted by their factor loadings are as summarized in table 4.11 above where the items with the higher factor loadings measure the factors and main construct more. All the four constructs had six indicators respectively. Branding hade six retained indicators, distribution had four retained indicators, pricing had 2 retained indicators and communication had three retained indicators.

Table 16: Factor Structure of Networking Capabilities

	Collaboration	**Interpersonal relations**	**Partner knowledge**
Any disagreement with within the group members is amicably resolved	.874		
Suggestions from our team members maximize team effectiveness	.797		
Group discussion amongst members is contributing to business success	.793		
We choose our leaders in the network group without difficulty	.587		
We have better relations with customers than our competitors		.828	
In our enterprise there are good relations between employees		.761	
Emotional experiences are always appropriately communicated to group		.733	
In our business superior and subordinates know exactly their		.694	
We know organizations which have influence on the success of our entity			.849
We are aware of resource capabilities of our key competitors			.767
We have substantial knowledge about activities of our suppliers			.675
Eigen value	***7.10***	***4.80***	***2.70***
Variance (%)	***21.20***	***17.70***	***12.00***
Cumulative Variance (%)	***21.20***	***38.90***	***50.90***

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 6 iterations.

Results in table 16 above revealed the factor structure for networking capabilities consists of three significant factors. In their order of importance, they include; collaboration (Eigen value = 7.1,

Variance = 21.20%), interpersonal relations (Eigen value = 4.80, Variance = 17.70%) and partner knowledge (Eigen value =2.70, Variance = 12 %). This implies that all the three factors measure networking capabilities by up to 50.90%. The salient features underlying each of the factors in their order of importance depicted by their factor loadings are as summarized in table 4.13 above. All the three constructs had six indicators respectively. Collaboration and interpersonal relations had four retained indicators respectively while partner knowledge had three retained indicators.

Table 17: Factor Structure of ICT Adoption

	Technological context	**Organizational context**	**Environmental context**
The new technology suited well with past control experience	.790		
Our staff`s curiosity and intrinsic interests were attuned by ICT	.785		
Most of our ICT tools adopted provide multiple functions	.916		
Most of our new ICT tools are user friendly	.830		
Knowledge management has drastically improved after introducing		.808	
Our costs and maintenance expenses have greatly reduced after		.777	
Our profit margins are higher than before introduction of ICT		.843	
Our hardware is compatible with the current trend of technology			.818
The software used in our business can be easily upgraded			.853
Our business uses simple network configuration to do business			.743
Eigen value	***11.34***	***5.46***	***2.73***
Variance (%)	***32.48***	***15.72***	***6.75***
Cumulative Variance (%)	***32.48***	***48.20***	***54.95***

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 12 iterations.

Results in Table 17 above revealed the factor structure for ICT Adoption consists of three significant factors. In their order of importance, they include; Technological context (Eigen value = 11.34, Variance = 32.48%), Organizational context (Eigen value = 5.46, Variance = 15.72%) and Environmental context (Eigen value =2.73, Variance = 6.75 %). This implies that all the three factors measure ICT Adoption by up to 54.95%. The salient features underlying each of the factors in their order of importance depicted by their factor loadings are as summarized in Table 17 above. All the three constructs had six indicators respectively. Technological context had four indicators while Organizational context and Environmental context had three retained indicators

Table 18: Factor Structure of Competitiveness of SME's

	Customer Satisfaction	Growth	Profitability	Productivity
We use internationally recognized quality certificate			.754	
We have easy access to technical infrastructures			.840	
Key enterprise stakeholders are happy with our products/services			.506	
We carry massive market advertisement on our products				.538
We have strong ICT infrastructure to link with our stakeholders				.772
Our employees are highly knowledgeable about the local and global market dynamics				.638
Our enterprise easily adapts to industry phase breakthroughs		.926		
We interpret new market trends easily		.716		
Our rival`s market tactics are quickly learnt by our employees		.776		
Our enterprise always derives opportunities for new technology		.756		
We readily adapt to changes in government policies		.666		
Our customers have a wide degree of choice of products and services	.791			
We have a wide comparability of offers for our customers	.817			
The level of switching of our customers to other competitors is low in our business	.759			
Consumer complaints regarding our product quality and price are minimum in our enterprise	.736			
The level of satisfaction derived by customers in consuming our products is high	.769			

Our customers are always eager to make repeat purchase of our products	.686			
Eigen value	***12.785***	***9.894***	***3.703***	***1.497***
Variance (%)	***24.762***	***17.434***	***7.650***	***5.970***
Cumulative Variance	***24.762***	***42.196***	***49.846***	***55.816***

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 9 iterations.

Results in table 18 above revealed the factor structure for SME competitiveness consists of four significant factors. In their order of importance, they include; Customer satisfaction (Eigen value = 12.784, Variance = 24.762%), growth (Eigen value = 9.894, Variance = 17.434%) and profitability (Eigen value =3.703, Variance = 7.65 %) and productivity (Eigen value =1.497, Variance = 5.97 %). This implies that all the four factors measure SME competitiveness by up to 55.816%. The salient features underlying each of the factors in their order of importance depicted by their factor loadings are as summarized in Table 18 above. All the four constructs had six indicators respectively. Customer satisfaction had six retained indicators, growth had five retained indicators, profitability and productivity had three retained indicators respectively.

4.5 Correlation Analysis

The person correlation coefficient was used to test the relationship between the observable constructs of the independent variables and dependent variable.

Table 19: Pearson Correlation analysis

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Branding (1)	1.000													
Distribution (2)	.060	1.000												
Pricing (3)	.467**	.098	1.000											
Communication (4)	.553**	.061	.365**	1.000										
Marketing Innovation (5)	.735**	.506**	.730**	.707**	1.000									
Collaboration (6)	.242**	-.002	.118	.479**	.295**	1.000								
Interpersonal Relations (7)	.513**	-.068	.407**	.455**	.464**	.367**	1.000							
Partner Knowledge (8)	.355**	-.097	.352**	.389**	.355**	.382**	.434**	1.000						
Networking Capabilities (9)	.466**	-.069	.366**	.571**	.472**	.780**	.744**	.790**	1.000					
Technological context (10)	.230**	.543**	.067	.242**	.417**	.078	-.045	.105	.067	1.000				
Organizational context (11)	.005	.435**	-.129	.102	.170*	.089	-.165*	-.068	-.051	.518**	1.000			
Environmental context (12)	.111	.442**	.047	.194**	.311**	.173*	.051	-.041	.082	.516**	.792**	1.000		
ICT Adoption (13)	.129	.545**	-.008	.206**	.343**	.134	-.060	-.006	.037	.771**	.902**	.905**	1.000	
SME Competitiveness (14)	.360**	.289**	.300**	.386**	**.498****	.285**	.364**	.424**	**.461****	.463**	.262**	.296**	**.389****	1.000
	.000	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	

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

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

Source: Primary data

4.5.1. The relationship between Marketing Innovation and Competitiveness of SME's

The first objective of the study was to examine the relationship between marketing innovation and SME competitiveness in Arua city. As seen in Table 19 above, there was moderate positive relationship between marketing innovation and SME competitiveness in Arua city which was significant ($r = .498$, $p<.01$).

4.5.2. The relationship between Networking Capabilities and Competitiveness of SME's

The second objective of the study was to examine the relationship between networking capabilities and SME competitiveness in Arua city. From the findings in Table 19 above, there existed a moderate positive relationship between networking capabilities and SME competitiveness in Arua city which was significant ($r = .461$, $p<.01$).

4.6 Testing for Mediation

To answer the objectives three and four, a test for mediation was conducted. The method which was used was one advanced by Baron and Kenny (1986).

4.6.1 Test for the conditions for mediation of ICT Adoption on Marketing Innovation and SME competitiveness.

According to Baron and Kenny (1986), mediation is only possible when there exists a significant relationship between; the independent variable and the mediator, the mediator and the independent variable, the dependent variable and the independent variable. Thus, regression analysis is used to test these conditions.

Table 20: Regression Analysis for the effect of marketing information on SME competitivenessModel		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.463	.167		14.710	.000
	Marketing Innovation	.373	.045	.498	8.279	.000

a. Dependent Variable: SME Competitiveness

The beta coefficient of the effect of marketing innovation (.373) on SME competitiveness is significant at 1% implying marketing innovation is related to SME competitiveness.

Table 21: Regression Analysis for the effect of ICT Adoption on SME competitiveness

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.295	.092		35.644	.000
	ICT Adoption	.182	.030	.389	6.092	.000

a. Dependent Variable: SME Competitiveness

The beta coefficient of the effect of ICT Adoption (0.182) on SME competitiveness is significant at 1% implying ICT Adoption has a relationship with SME competitiveness.

Table 22: Regression Analysis for the effect of Marketing Innovation on ICT Adoption

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.943	.388		2.434	.016
	Marketing Innovation	.549	.104	.343	5.258	.000

a. Dependent Variable: ICT Adoption

The unstandardized beta co-efficient (0.549) of the effect of Marketing Innovation on ICT Adoption is significant at 1% implying there is a relationship between Marketing Innovation and ICT Adoption.

From the above results in Tables 20, 21 and 22 it can be concluded that the conditions for conducting mediation are all fulfilled. Thus, we proceeded to test for the mediating effect of ICT Adoption on the relationship between Marketing innovation and SME competitiveness.

Table 23: Regression Analysis for the effect of Marketing Innovation on SME Competitiveness controlling for ICT Adoption on SME competitiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.354	.164		14.354	.000
	ICT Adoption	.116	.029	.248	4.007	.000
	Marketing Innovation	.310	.046	.413	6.682	.000

a. Dependent Variable: SME Competitiveness

From the regression results in Table 23, when we controlled for ICT Adoption, the effect of marketing information (0.31) on SME competitiveness was significant at 1%. This implies that there is a partial mediation of the effect of marketing innovation on SME competitiveness by ICT adoption.

Figure 2: The mediation Model for the mediating effect of ICT Adoption on Marketing Innovation and SME Competitiveness in Arua City

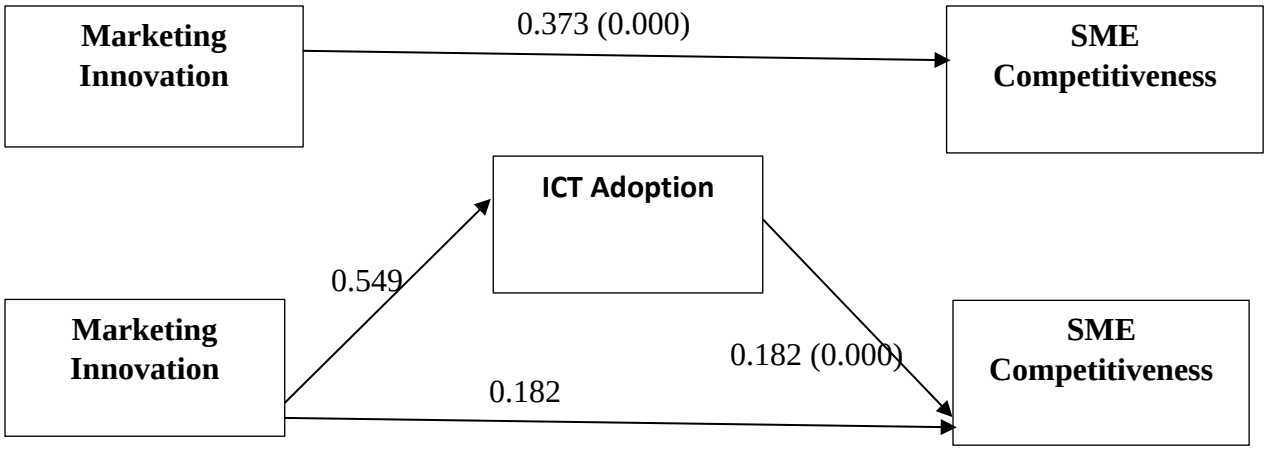


Table 24: Test for the significance of the mediation using the Sobel test and the point estimate of the indirect effect of Marketing Innovation mediated by ICT Adoption on SME competitiveness.

INPUT	Sobel test	Test statistic	Std. Error	P. Value
A=0.549				
B=0.182		3.982	0.056	0.000068
S.E (A)=0.104				
S.E(B)=0.030				

The results from the Table 24 above indicate that the indirect effect of marketing innovation on SME competitiveness through ICT Adoption is significant at 99% level of confidence (P<0.01). The point estimate of the indirect effect is thus given by=A*B=0.549*0.182=0.102

4.6.2 Test for the conditions for mediation of ICT Adoption on Networking Capabilities and SME Competitiveness

Table 25: Regression Analysis for the effect of Networking Capabilities and SME competitiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.998	.246		8.106	.000
	Networking Capabilities	.440	.059	.461	7.487	.000

*a. **Dependent Variable: Competitiveness***

Networking Capabilities (0.44) affects Competitiveness positively which is significant at 1% (P=0.000)

Table 26: Regression Analysis for the effect of Networking Capabilities on ICT Adoption

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.638	.593		4.450	.000
	Networking Capabilities	.076	.141	.037	.541	.589

*a. **Dependent Variable: ICT Adoption***

There is a positive relationship between networking capabilities and ICT Adoption which is not significant that is to say p=0.589>0.05. According to Baron and Kenny (1986), if one or more of the relationships between; the independent variable and the dependent variable, the independent variable and the mediator and the mediator and the dependent variable is non-significant, it proves the absence of mediation. Therefore, we conclude that ICT Adoption does not mediate the effect

of Networking Capabilities on SME competitiveness in Arua city. Thus, we saw no need to proceed to test for mediation.

Table 27: Regression Analysis for the combined effect of marketing innovation, networking capabilities and ICT adoption on SME competitiveness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.623[a]	.389	.380	.33311	.389	43.645	3	206	.000

a. Predictors: (Constant), ICT Adoption, Networking Capabilities, Marketing Innovation

From Table 27 above, the Adjusted R-Square value above implies that up to 38.0% of the variations in SME competitiveness can be explained by the changes in marketing innovation, networking capabilities, ICT Adoption and the interaction between marketing innovation, networking capabilities and ICT Adoption. The combined effect of marketing innovation, networking capabilities and ICT Adoption on SME competitiveness is significant (0.000, P<0.01) keeping other factors constant.

Table 28: Beta coefficients of marketing innovation, networking capabilities and ICT Adoption on SME competitiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.427	.230		6.189	.000		
	Marketing Innovation	.178	.050	.237	3.570	.000	.672	1.489
	Networking Capabilities	.322	.060	.338	5.402	.000	.760	1.316
	ICT Adoption	.138	.027	.295	5.033	.000	.863	1.159

a. Dependent Variable: SME Competitiveness

From Table 28 above, a unit increase in Marketing Innovation leads to an increase in SME competitiveness by 0.178 units which is significant at 1% keeping other factors constant. Also from Table 28 above, a unit increase in networking capabilities leads to an increase in SME competitiveness by 0.322 which is significant at 1% keeping other factors constant. Lastly a unit increase in ICT Adoption leads to an increase in SME competitiveness by 0.138 units which is significant at 1% keeping other factors constant.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the discussions, conclusions and recommendations of the findings presented in chapter four in line with the research objectives and reviewed literatures. The chapter is divided in to three sections which include; the discussion of findings, conclusions and recommendations based on the findings.

5.2 Discussions of findings

The discussion of the findings is in relation to the study objectives as stated in chapter one and they are discussed as below;

5.2.1 Marketing innovation and competitiveness of SMEs

The correlation results revealed that there was moderate positive signifacnt relationship between marketing innovation and SME competitiveness. This therefore means that marketing innovation enhances competitiveness of SMEs in Arua city. That is, the manager of SMEs can influence the competitiveness of SMEs through branding, distribution, setting affordable prices of their products and communication. These findings are in agreement with the earlier scholars such as Ungerman, Dedkova & Gurinova (2018) who attempted to identify the impact of innovative marketing on enterprises' competitiveness in the context of industry, and they empirically confirmed that innovative marketing is a significant factor in determining enterprise competitiveness. Suraksha, (2016) conducted research showing the link between marketing innovations in an enterprise and the competitiveness of its brand and result showed a strong link between marketing innovation and competitiveness. Similarly, Olazo (2021) measured the role of marketing innovation to sustainable competitive advantage of the SMEs and found that there is a significant relationship between

marketing innovation and sustained competitive advantage of the firm. Furthermore, Gupta *et al*. (2016) administered a study determining the correlation between unique marketing in an industry and a growth in the competitiveness of a firm. The findings indicate that effectiveness of a firm`s market has positive and strong correlation with its competitiveness in the industry.

5.2.2 Networking capabilities and competitiveness of SMEs in Arua city

The correlation results revealed that networking capabilities had a moderate positive relationship with SME competitiveness which was significant at 1%. Further the regression results revealed that networking capabilities has a significant positive effect on SME competitiveness at 1%. This therefore means that networking capabilities enhances competitiveness of SMEs in Arua city. This implies that an improvement in networking capabilities through good collaboration with clients, relationship skills and partner knowledge with customers can lead to competitiveness of SMEs of Arua city. These findings are in agreement with the earlier scholars such as Swierczek, (2019) sought to elaborate on the competitive advantage using the perspective of networking characteristics such as: - network size, its density, intensity, reciprocity, heterogeneity, and centrality. The study result shows that most of these characteristics have positive impact on the competitive advantage of supply chains. Secondly, Hasyim and Pudyastuti (2020) examined the effect of entrepreneurial orientation strategy as an independent variable, and network ability as intervening variable on the competitive of SMEs in Indonesia. The research findings show positive effect of: - entrepreneurial orientation on networking; and networking on competitiveness. On their part, Shah *et al.,* (2019) examined the role of networking capability (NC) using four dimensions i.e., coordination (CO), relational skills (RS), partner's knowledge (PK), and internal communication (IC) on a firm`s survival using strategic renewal (SR) as mediating role. The

results proved that CO, RS, PK, and IC have significant positive impact on survival; while SR also has strong mediating effect on the relationships between NC and organizational survival.

5.2.3 Assess the mediation effect of ICT adoption on marketing innovation and competitiveness of SMEs in Arua city

The regression results in Table 22, when we controlled for ICT Adoption, the effect of marketing innovation on SME competitiveness was significant at 1%. This implies that there is a partial mediation of the effect of marketing innovation on SME competitiveness by ICT adoption. The indirect effect of marketing innovation on SME competitiveness mediated by ICT adoption using a point estimate was 0.102 and the Sobel test for significance of this indirect effect was found to be significant at 1% test results (3.982, $P<0.01$). These findings have an important implication for SMEs' administrators. Today, improvement of SMEs' businesses by branding products, distributing products to the door site of SMEs, offer products at low prices and good communication with their workers through internet, digitally, offering conducive environment and well organize system can bring about SME competitiveness in terms of profitability, growth, productivity and customer satisfaction. These findings concur with earlier scholars such as Shawky *et al*., (2019) who established significant positive relationship between marketing innovation based on social media and competitive advantage. Similarly, in examining the relationship between marketing innovation, social media, competitiveness and performance, Tajeddini & Ali, (2020) established that business-level networking by use of ICT empowers creation of innovative product offerings to gain competitive advantages, and achieve superior business performance. In another study to observe the impact of innovation and ICT adoption on firm performance, Ferreira, Fernandes, & Ferreira, (2018) found that product innovation mediates the influence of social media adoption on the company's performance. More so, Foltean *et al.,*

(2018) assessed the relationship between marketing innovation, social media and firm performance and recognized that: - marketing innovation has fair; social media has poor; and innovation through social media has strong and positive relationships with performance. This confirms that social media itself could not directly enhance firm performance.

5.2.4: To assess the mediation effect of ICT adoption on networking capabilities and competitiveness of SMEs in Arua city

ICT adoption was found to have no mediating effect on networking capabilities and SME competitiveness in Arua City as some of the conditions for mediation were not fulfilled. Particularly it was established that networking capabilities had no relationship with ICT Adoption making it hard for ICT Adoption to mediate between networking capabilities and SME competitiveness. This contradicted Varadarajan (2020) who found a strong relationship between networking and social media. The overall result contradicts Ahmad *et al*., (2019) who found that firm competence was enhanced via social media adoption as it facilitated the communication and commitment among network partners.

5.2.5: To explore the combined effect of marketing innovation, networking capabilities and ICT adoption on competitive of SMEs in Arua city

The results from the study revealed that the combined effect of marketing innovation, networking capabilities and ICT adoption on competitiveness of SMEs in Arua city significant. As derived from the model summary in Table 27, the results show that the combined effect of marketing innovation, networking capabilities and ICT adoption predict 38.0% (Adjusted R^2=0.380) of the variance in competitiveness of SMEs in Arua city. This means that there are other factors that influence the competitiveness of SMEs by 58.5%. This combined effect agrees with the findings of Dhameria *et al*., (2021) investigated variables such as networking capability, entrepreneurial

marketing, competitive advantage, marketing performance of SMEs in Indonesia. Results indicate that: - entrepreneurial marketing creates competitive advantage through marketing innovation to achieve performance; network capability and entrepreneurial marketing significantly influence competitive advantage of SMEs; and networking capability, entrepreneurial marketing, and competitive advantage significantly influence marketing performance of SMEs. Also, Olazo, (2021) measured the mediating role of marketing innovation to marketing competence and competitive advantage of the SMEs

5.3 Conclusion

The study examined the relationship between marketing innovation, networking capabilities, ICT adoption and competitiveness of SMEs in Arua city. The findings indicate that there is a significant positive relationship between marketing innovation, networking capabilities, ICT adoption and SME competitiveness. The study findings add on to the earlier works of other scholars and debates on the predictors of competitiveness, since the review of literature suggested that there are researches that have been carried out mostly from United Kingdom, USA, Malaysia, India, and the like. Not much of the studies have been carried out on the predictors of competitiveness from a Ugandan perspective. Thus, this study adds to the body of knowledge to give the research a Ugandan perspective. The study concludes that marketing innovation, networking capabilities and ICT adoption explains the variation in competitiveness by 38.0% and thus, these findings help us to know the contribution of predictor variables to competitiveness. The ability to enhance the competitiveness of SMEs depends on the marketing innovation, networking capabilities and use of social and digital media.

5.4 Recommendations

The recommendations are based on the findings and discussions of the study.

- Management should put more emphasis on marketing innovation since it has more predictive power on SME competitiveness than networking capabilities and ICT adoption. This could be done by creating brand awareness, improving distribution networks, offering attractive prices and enhancing communication strategies.
- Management should also improve their networking capabilities through developing their collaboration, interpersonal relations and partner knowledge aspects.
- Lastly, the SME`s technological, organizational and environmental contexts should be developed in order to enhance their ICT adoption capabilities to achieve better competitiveness.

5.5 Limitation of the study

The study faced with non-response of respondents who chose not to fill the questionnaire due to time constraint. This was mitigated by appointing a research assistant who distributed and collect the duly filled questionnaires after the agreed time. The researcher anticipates that the respondents might provide incomplete information because of their busy work schedule. This was minimized by making phone call reminders and suggesting time frame for completing the questionnaire. Some respondents were reluctant in receiving the questionnaire due to the fear of getting COVID 19 and it was minimized by upholding the standard operating procedures emphasized by ministry of health.

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QUESTIONNAIRE
MAKERERE UNIVERSITY BUSINESS SCHOOL

GRADUATE RESEARCH CENTRE

Dear Respondent,

I am a student of Makerere University Business School pursuing Master of Business Administration (MBA) of Makerere University. As a requirement for award of this degree, I am carrying out research on the topic: **Marketing Innovation, Network Capability and Competitiveness of SMEs: The case of SMES in Arua City.** You have been carefully selected to participate in this study due to the importance of your information in the research and promise that the information you provide will be treated with utmost confidentiality and used solely for this study. Your contribution is highly appreciated.

SECTION A: **SOCIAL DEMOGRAPHIC INFORMATION** (please tick appropriately)

Part I: Personal Characteristics

PERS 1: Gender: Male ☐ Female ☐

PERS 2: Marital status: Single ☐ Married ☐ Widow ☐ Widower ☐

PERS 3: Age bracket

25-31 Years	32-38Years	39-45Years	46-52 Years	Above 52Years

PERS 4: Highest Academic qualification

Primary	Secondary	Certificate	Diploma	Degree	Post graduate diploma

PERS 5: Designation

Owner	Manager	Accountant	Cashier

PERS 6: Number of years worked

Less than one year	1-3 years	4-6 years	7-9 years	Over 9 years

Part II: Organizational Characteristics

ORC1. Type of the SME (Please Tick one)

Small (Number of employees): 5 to 49 ☐ Medium (Number of employees): 50 to 100 ☐

ORC2. Type of Industry (Please Tick one)

Agriculture ☐ Fishing ☐ Mining & Quarry ☐ Food Processing ☐

Other Manufacturing ☐ Utilities ☐ Construction ☐

Trade ☐

Transport & Storage ☐ Real Estates ☐ Accommodation & Food services ☐

Information & Communication ☐ Finance & Insurance ☐

Education & Health ☐ Recreation & Personal ☐

ORC3. Period of existence of the SME

Less than one year	1-3 years	4-6 years	7-9 years	Over 9 years

SECTION B:

Indicate in your opinion which Likert statements on scales by ticking the appropriate box on the basis of the following scale.

Scale	**1**	**2**	**3**	**4**	**5**
Description	**Strongly disagree**	**Disagree**	**Not sure**	**Agree**	**Strongly agree**

CODE	**MARKETING INNOVATION**	**SCORES**				
	Part I: Branding	1	2	3	4	5
MIB1	Our enterprise has a strong brand image					
MIB2	The enterprise`s logo suits the personality of the brand					
MIB3	The enterprise`s brand reflects its mission statement					
MIB4	The enterprise `s brand clearly reflects its history					
MIB5	The brand image articulates our clients` wants					
MIB6	Our business is willing to improve the brand identity over a long period					

	Part II: Distribution	1	2	3	4	5
MID1	Our entity embraces use of electronic intermediaries					
MID2	Buying electronically is common in our business					
MID3	We make online deliveries in our enterprise regularly					
MID4	Our entity has taken customized direct selling seriously					
MID5	Multi-level indirect selling is taking shape in our business					
MID6	Our supply chain management has tremendously improved					
	Part III: Pricing	1	2	3	4	5
MIP1	Value-based pricing is taking root in our firm					
MIP2	Our enterprise charges lower prices for bundles of items than selling them individually					
MIP3	We employ automation to target individual website visitors with prices that match their buying thresholds					
MIP4	Creative discounting techniques are usually employed to fix prices for our dedicated customers					
MIP5	Some loyal customers are usually requested to participate in naming their prices					
MIP6	Our enterprise uses psychological pricing to influence higher value purchases					
	Part IV: Communication	1	2	3	4	5
MIC1	We have an online social network to engage with our customers					
MIC2	Our enterprise regularly updates its webpage					
MIC3	We participate in discussion forums regarding business development					
MIC4	We partake in video sharing sites					
MIC5	Our communication channels are accessible to all customers					
MIC6	Our customers always get one-on-one interface with our sales force					
	NETWORKING CAPABILITY					
	Part I: Collaboration	1	2	3	4	5
NCC1	We established common goals with our business partners					
NCC2	We have a good communication with our business companions					
NCC3	Any disagreement with within the group members is amicably resolved					
NCC4	Group discussion amongst members is contributing to business success					
NCC5	We choose our leaders in the network group without difficulty					

NCC6	Suggestions from our team members maximize team effectiveness					
	Part II: Interpersonal relations	1	2	3	4	5
NCI1	We have better relations with customers than our competitors					
NCI2	In our business superior and subordinates know exactly their responsibilities					
NCI3	In our business, communication between employers goes without problems					
NCI4	We approach solutions to conflicts directly, clearly communicating what can be done to resolve our differences					
NCI5	In our enterprise there are good relations between employees					
NCI6	Emotional experiences are always appropriately communicated to group member					
	Part III: Partner knowledge	1	2	3	4	5
NCP1	We have substantial knowledge about activities of our suppliers					
NCP2	We know organizations which have influence on the success of our entity					
NCP3	We know intentions of persons who have influence on the success of our entity					
NCP4	We have complete knowledge about our key customers					
NCP5	In practice, customers more frequently stop purchasing from us than from our competitors					
NCP6	We are aware of resource capabilities of our key competitors					
	ICT ADOPTION					
	Part I: Technological context	**1**	**2**	**3**	**4**	**5**
IAT1	Our hardware is compatible with the current trend of technology					
IAT2	The software used in our business can be easily upgraded					
IAT3	Our business uses simple network configuration to do business					
IAT4	Our business has adequate computers and computer peripherals					
IAT5	We have reliable communication gadgets					
IAT6	The business has a number of digital devices like cameras and camcorders					
	Part II: Organizational context	1	2	3	4	5
IAO1	We experienced better market access opportunities after ICT adoption					
IAO2	Knowledge management has drastically improved after introducing ICT					
IAO3	Speed and reliability of serving customers has increased					
IAO4	We often generate revenue from intellectual property rights					

IAO5	Our costs and maintenance expenses have greatly reduced after adoption of ICT					
IAO6	Our profit margins are higher than before introduction of ICT					
	Part III: Environmental context	1	2	3	4	5
IAE1	The new technology suited well with past control experience					
IAE2	Our staff`s curiosity and intrinsic interests were attuned by ICT adoption					
IAE3	The social norms were well matched with the new technology					
IAE4	The preferred lifestyle of our employees was enhanced by the new technology					
IAE5	Most of our ICT tools adopted provide multiple functions					
IAE6	Most of our new ICT tools are user friendly					
	COMPETITIVENESS OF SME					
	Part I: Profitability	1	2	3	4	5
CPR1	Our present operations are efficient in terms of cost and time					
CPR2	Our product quality and quantity offerings meet customer needs					
CPR3	We have conducive environment for conducting business					
CPR4	We use internationally recognized quality certificate					
CPR5	We have easy access to technical infrastructures					
CPR6	Key enterprise stakeholders are happy with our products/services					
	Part II: Productivity	1	2	3	4	5
CPD1	Our enterprise gathers a lot of information on customer profiles and needs					
CPD2	We carry massive market advertisement on our products					
CPD3	Our enterprise has strong links with the industry sector players					
CPD4	Our enterprise has strong membership in the local trade associations					
CPD5	We have strong ICT infrastructure to link with our stakeholders					
CPD6	Our employees are highly knowledgeable about the local and global market dynamics					
	Part III: Growth	1	2	3	4	5
CGR1	We have flexible employees to transform the business					
CGR2	Our enterprise easily adapts to industry phase breakthroughs					
CGR3	We interpret new market trends easily					
CGR4	Our rival`s market tactics are quickly learnt by our employees					
CGR5	Our enterprise always derives opportunities for new technology					
CGR6	We readily adapt to changes in government policies					

	Part IV: Customer Satisfaction	1	2	3	4	5
CCS1	Our customers have a wide degree of choice of products and services					
CCS2	We have a wide comparability of offers for our customers					
CCS3	The level of switching of our customers to other competitors is low in our business					
CCS4	Consumer complaints regarding our product quality and price are minimum in our enterprise					
CCS5	The level of satisfaction derived by customers in consuming our products is high					
CCS6	Our customers are always eager to make repeat purchase of our products					

This completes your participation in the study. ***God bless you***

5: KREJCIE AND MORGAN'S TABLE

Sample size (S) required for the given population size (N)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	256	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

Note: From R.V Krejcie & D.W. Morgan (1970), determining the sample size for research activities, educational and psychological measurement.

11th April 2020

Town Clerk
Arua Municipal Council

8. REPORT ON BUSINESSES ISSUED WITH LICENCE 3RD QUARTER 2019/2020

Please, receive a copy business issued with License for 3rd Quarter 2019/2020

Summary

Value of License AHD	47,118,500Shs
Value of License ROD	4,380,000Shs
Formal Businesses AHD	208
Formal Businesses ROD	28
Informal Businesses AHD	01
Informal Businesses ROD	00
Licenses issued AHD	197
Licenses Issued ROD	28

ACCRONYMS:

AHD Arua Hill Division

ROD River Oli Division

Source: City Commercial Officer (2020).