

Information Needs of Startup Women Entrepreneurs in Uganda

Mary Komunte¹ and Rehema Baguma²

¹Uganda Technology and Management University, P.O Box 73307, Kampala, Uganda.

²College of Computing & Information Sciences, Makerere University, P.O Box 7062, Kampala, Uganda.

¹ mkomunte@utam.ac.ug , ² rbaguma@cis.mak.ac.ug

Abstract

Women entrepreneurs play an important role in stimulating the economic development of nations and the world in general. According to the 2012 GEM Report, women in Uganda are almost as likely to be involved in starting an enterprise (35.6%) as men (36%). However, the failure rate of such enterprises is equally high compared to those led by men. This high failure rate has been attributed to inadequacies in business development information among others despite the information technology boom particularly the high rate of ownership and use of mobile phones. In 2014, Uganda had over 14 million mobile phone subscribers and 100% network coverage. Although there is growing use of mobile technology in socio economic development such as monitoring disease outbreaks, agricultural extension services, education, provision of market prices, etc., mobile phones are not yet widely used to avail Small and Medium Sized Enterprises (SMEs) in Uganda information required to support decision making. Most efforts have been focused on using mobile phone technology to provide SMEs with market and market price information. However, many other types of information are needed alongside markets and market prices to support effective decision making for SME startups such as; source of loans and their conditions, training in selection of enterprises, basic book keeping, sensitization about relevant laws and policies, etc. This paper examines information needed to support decision making of startup women entrepreneurs in Uganda and the potential of mobile phone technology to facilitate easy access to such information.

Key Words: *Startup women entrepreneurs, Information needs, mobile technology and entrepreneurship.*

1.0 Background

Women entrepreneurs play an important role in stimulating the economic development of nations and the world in general. According to the 2012 GEM Report, women in Uganda are almost as likely to be involved in starting an enterprise (35.6%) as men (36%). Therefore, women led enterprises in Uganda have been increasing since 2003 and by 2015, they stood at 45% (UBOS, 2015). However, the failure rate of women led enterprises is equally high compared to those led by men. This high failure rate has been attributed to inadequate business development information among others especially in developing countries. According to UNIDO, (2005), in most developing countries, the SMEs sector suffers from inadequacies in the provision of business information - which is often either unavailable or slow and cumbersome to access; limited in scope; and not provided in an integrated manner. According to Zororo (2011), startup women often lack information about how to access loans, lack the necessary collateral to obtain one and /or face discriminatory laws or practices related to finance and credit (Commonwealth secretariat, 2013). In addition, women entrepreneurs have financial social demands that compete with business capital, leading to a diversion of capital away from business needs (Makokha, 2006).

On the other hand, the availability and use of mobile phone technology has been continuously growing in developing countries. In Uganda, there were over 14 million mobile phone subscribers and 100% network coverage in 2014 (UCC, 2014). This has enabled a number of mobile phone technology supported socio-economic services such as mobile money, monitoring disease outbreaks, supporting disease diagnosis and treatment, sending health education messages, sending several drug intake reminders a day to HIV-positive patients, providing agricultural advisory services (Aker & Mbiti, 2010). However, mobile phones are not yet widely used to avail SMEs in Uganda information required to support effective decision making. Most efforts have been mainly focused on using mobile phone technology to provide SMEs with market and market price information (Aker & Mbiti, 2010). However, many other types of information are needed alongside markets and market prices to support effective decision making for SME startups such as; source of loans and their conditions, training opportunities in entrepreneurship development, sensitization about relevant laws and policies, etc. This paper examines information needed to support effective decision making by startup women entrepreneurs in Uganda and the potential of mobile phone technology to facilitate easy access to such information by startup women entrepreneurs.

The study focused on women entrepreneurs located in Kampala city, Uganda because urban enterprises have 25% survival chance beyond six months compared to similar rural enterprises (Meadand Liedholm, 1998). Secondly, with regard to the availability and use of mobile phones and other ICTs in general, ICTs were rolled out earlier and presently have a higher penetration rate in urban areas compared to rural areas (UCC, 2016; Castells et al., 2007). Moreover, to- date there are more studies on mobile phones and enterprises in rural settings such as (Acker and Mbiti, 2010; Jensen, 2007; Jagun et al.; 2007 and Ducommbe and Heeks, 2002), compared to studies on small

scale women entrepreneurs in urban areas and mobile phones (Svensson and Wamala Larsson, 2015, Chew, Ilavarasan and Levy, 2010).

More so, our choice of women entrepreneur as subjects of research is motivated by the fact that increased use of mobile phones by women entrepreneurs for business development might increase the effectiveness and profitability of women led enterprises which in turn will increase their empowerment (GSMA, 2016 and Huyer, 2005). Therefore, by studying women entrepreneurs and mobile phones, we hope that our research might provide some understandings into the efficacy of mobile phones in bridging the gender digital divide. GSMA (2016) noted tackling the gender gap in mobile phone ownership and use is a critical topic that still needs attention. Digital inclusion for women is essential because when women thrive, societies and economies thrive too.

The main aim of this research was to investigate the information needs of startup women entrepreneurs in Uganda to support decision making and the potential of mobile phone technology to facilitate easy access to such information. The next sub section presents the motivation for this study

2.0 Motivation for this Study

The informal sector in Uganda is growing at more than 45% (UBOS, 2016) of the total economy and majority of Ugandan women entrepreneurs fall in the informal sector category (World bank Report, 2005). According to the 2013 World Bank Global Entrepreneurship Monitor (GEM) report, the informal enterprises are the biggest source of employment in urban cities. In Kampala, Uganda's capital, 15 % of informal enterprises are urban market stalls (World Bank, 2013).

The informal sector is characterized by job insecurity, weak labor laws, and inflexible working hours. However, this sector continues to facilitate the marginalized especially women to secure employment for survival. Women entrepreneurs dominate the informal sector in Uganda (UBOS, 2016). The increasing participation of women in the informal sector is explained by lack of access to, control of and ownership to property and land which makes them lag behind in accessing startup capital and finances to grow their businesses.

Access to reliable information is vital to all businesses including those in the informal sector. For any business to survive and thrive in the digital era, it should have access to timely information for decision making (Tawah, 2013). Therefore, startup women entrepreneurs need reliable information in the process of starting up enterprises.

However, startup women entrepreneurs face challenges in accessing information required to start and effectively run their enterprises because they lack exposure to formal sources of information due to social cultural norms among other causes (Namatovu *et al*; 2012). As a result, they receive incomplete, distorted and or out dated information (Namatovu *et al*; 2012). Furthermore, the hurdle of access is complicated more by lack of relevant skills in accessing information using modern communication technologies like mobile phones, internet, social media networks and others ICT

tools (Rangongo, 2013). Other difficulties faced by startup women entrepreneurs in accessing business development information include: limited awareness about where to get required information from, and lack of trust in the available information (Ikoja, 2004). Uganda has numerous entrepreneurship training organizations and advisory networks such as Women Entrepreneur Associations which provide social and economic support, but their reach is limited to a few educated women, mostly in peri-urban and urban areas and they are highly dependent on volunteerism (Namagala, 2007). Therefore, few women are able to access these services on an affordable and ongoing basis.

In Uganda, there is still a gap in literature about how women entrepreneurs can access and utilize business development information in decision making in order to operate and succeed in an increasingly competitive and challenging business environment

There is, however, a consensus that mobile phones can support the development of businesses enterprises (Donner, 2007; Acker and Mbiti, 2010, Komunte, Rwashana and Nabukenya, 2012, Svensson and Wamala Larsson, 2015, Chew, Ilavarasan and Levy, 2010). Several researches offer insights on the benefits of mobile phones and the Internet among entrepreneurs. These include price determination (Jensen, 2007; reduction of transport costs by substituting long journeys, marketing products using social media networks, improved information access and financial inclusion through mobile money and many others. However, few studies have studied the information needs of women entrepreneurs particularly small scale women entrepreneurs in the informal sector.

Although there is no reliable count of women entrepreneurs who use mobile Internet, Smartphones and basic phones are thought to hold significant development potential, particularly in urban settings, where they are providing inexpensive internet access to people without Personal computers (GSMA, 2016 and Svensson and Larsson, 2015). Kuzabiashara.com believes that the overwhelming majority of mobile Internet users are young men and women who buy data for gaming, online chats, online marketing especially on social media networks, pornography, and seeking information about jobs and education opportunities.

Several studies carried out in Africa on the use of mobile phones for enterprises development such as (Boating, Hinson, Galadima and Olumide(2014); Komunte, Rwashana and Nabukenya (2012) and (Tawah (2013) found out that mobile phones facilitate access to reliable information, including locating suppliers and customers, thus enhancing effective communication and business processes and eliminating middlemen and increasing productivity (Donner and Escobari, 2010). However, limited research has been carried out about the information needs of startup women entrepreneurs for effective decision making and the extent to which these needs can be met through the widely used mobile phone technology. The next section presents the methodology that was used to achieve the objectives of this study.

3.0 Methodology

The aim of the study was to investigate the information needs of startup women entrepreneurs in Uganda for effective decision making and the potential of mobile phone technology to meet these needs. The study was carried out in Kampala district, Uganda in December, 2014 in three markets namely; Nakasero (a high end market for the rich and elite), Nakawa (a middle end market) and St Balikuddembe (a low end market). These markets were selected due to the fact that majority of the market vendors are women running very small scale businesses in particular groceries who trade mostly in groceries (Development Initiative International, 2015). The study was carried out using an administered questionnaire that was largely quantitative on 150 women startups entrepreneurs (50 from each market). The participants had to have started their business less than 6 months ago (to qualify as startups); had to be owners not employees; completed primary level of education and above, and selling groceries. An incentive of mobile phone airtime worth 1,000 Uganda shillings equivalent to approximately USD 0.3 was given to each participant to motivate them to participate in the study.

The pilot study was undertaken at Uganda technology and Management University (UTAMU) to validate and polish the questionnaire before actual administration. The questionnaire was distributed to 10 students perusing Bachelor of Information Systems and Technology and 5 Lecturers in the School of Business and Management who had personal businesses. The results from the pilot exercise were used to refine the questionnaire before actual administration on the women entrepreneurs in the three markets.

After piloting, the questionnaire was translated into Luganda, the language most market vendors in Kampala are comfortable with and the Research Assistants were trained on how to approach participants and administer the questionnaire. After the training, the Research Assistants rehearsed as a team in the presence of the Researchers about how to approach and administer the questionnaire several times until they mastered the procedure. A total of 150 women entrepreneurs, (50 from each market) meeting the criteria of the study were randomly selected and studied. Permission was sought from Market leaders to conduct research in the 3 markets and the interviews were held with the market vendors in the market besides their grocery stalls. Before each interview, potential participants were briefed about the study and asked whether they were interested in participating in the study. Those that refused outrightly or had mixed feelings, they were not interviewed. The collected information was entered into an excel sheet, analyzed and synthesized together to generate interpretations in relation to the aim of the study. The next section presents the findings from the study.

3.0 Findings from the Study

This section presents the findings obtained in the study from the questionnaires administered.

3.1 Introduction

A total of 150 questionnaires were administered in this study and all the 150 were responded to. All the 150 participants were female due to the special focus of the study.

3.2 Age of the Respondents

Most startup women entrepreneurs studied are between 26-45 years of age (64%). This finding concurs with Namatovu *et al.*; (2012) and Svensson and Larsson (2015) who noted that most women entrepreneurs are under the age of 35 years and this is the group with the highest number of startups. Levesque and Minniti (2006) noted the existence of an inverted U-shaped relationship between age and involvement in starting a new business, and Reynolds *et al.* (2003) noted that the most entrepreneurially active age group is 25 and 34 years. Details about the age groups of the participants are given in table 3.1.

Table 3.1: *Age of the Respondents*

Age	Number of Respondents	Percentage (100%)
26-35	52	34.7%
36-45	44	29.3%
15-25	26	17.3%
46-55	16	29.3%
56-60	6	4%
>60	6	4%
Total	150	100%

3.3 How long Businesses of Participants have been in Operation

The majority of the participants had been running their businesses for 1-3 months. This implies that their chance of survival was still unknown since they were still in the vulnerable period (Namatovu *et al.*, 2012 and Kunene, 2008). Details about the age of the participants' businesses are given in table 3.2.

Table 3.2: *How long Businesses of Participants have been in Operation*

Period	Number of Respondents	Percentage (100%)
1-3 months	79	52.7%
Less than a month	37	24.7%
4-6 months	34	22.6%
Total	150	100%

3.4 Highest Level of Education

Studies have revealed that education is a significant aspect of entrepreneurship among women because it inspires them to start enterprises (GEM Report, 2014; Minniti, Allen & Langowitz, 2006 and Edwards & Muir, 2005). Therefore, the study sought to establish the education levels of the participating women entrepreneurs and the results revealed that majority of the respondents had completed primary school and ordinary level secondary school (66%). Therefore, other factors constant, they all knew how to read and write hence if trained could use mobile services in their business effectively. This is attributed to universal primary and secondary education and business sensitization programmes like advisory business foras, investment clubs, TV and radio programmes on business development and business development services from financial institutions (Frank, 2012). Furthermore, the study reveals an increasing trend of graduates (20.7%) joining the business sector which points to a growing trend of fresh graduates becoming job creators than job seekers. This could also be partly attributed to teaching of entrepreneurship as an examinable course in secondary schools and universities. Mentorship programs in entrepreneurship and innovations in higher institutions of learning are also increasing (Frank, 2012). The distribution of the participants across the different levels of education is presented in table 3.3.

Table 3.3: *Level of Education*

Level of Education	Number of Respondents	Percentage (100%)
Ordinary level	53	35.3%
Primary level	46	30.7%
Tertially	31	20.7%
Advanced level	20	13.3%
Total	150	100%

3.5 Reasons for Starting the Businesses

The study was also interested in establishing the reasons for starting the business and it was found that majority of the participants started business in order to be independent (74%), followed by desire to get high income (49.3%). This finding concurs with findings of other researches such as Minniti (2010), who noted that women in developing countries became active entrepreneurs due to necessity. Details are given in table 3.4.

Table 3.4: *Reasons for Starting the Businesses*

Reason	Number of Respondents	Total Number of Participants	Percentage
To be self-employed/ Independent	111	150	74%
Brings high Income	74	150	49.3%

To supplement Income/ No other alternative for income	42	150	28%
Family Traditional	40	150	26.7%
Had experience	39	150	26%
Others : had no job and school fees, illiteracy, had enough income, lost spouses and my relatives initiatives	20	150	13.3%

Note: Respondents could choose more than one option

3.5 Reasons for selecting the Business Idea

The basis for the selection of the type of business for the majority of the participants was based on formal training (36%) and personal initiative (52%). This concurs with findings of women entrepreneurship development in Uganda (ILO, 2014) which revealed that women in Uganda are more likely to start business related to their knowledge, experience and skill base. Richardson *et al.* (2014) and Bulsara and Pandurengan (2007) noted that most entrepreneurs receive some form of training before and or during the period of establishing their business. From the study, only 36% of the respondents received formal training before they selected their businesses. Hence, there is need for information on training opportunities for entrepreneurs and specifically women entrepreneurs about selecting businesses enterprises which could increase the success rate of women led start-ups. Details about the findings obtained on reasons for selecting the business idea are presented in table 3.5.

Table 3.5 *Reasons for Selecting the Business Idea*

Reason	Number of Respondents	Total Number of Participants	Percentage
My own initiatives	78	150	52%
Received formal training	54	150	36%
Advice from mentors	27	150	18%
Received informal training thru women groups	25	150	16.7%
Carried out research in different markets	23	150	15.3%
Others	13	150	8.6%

Note: Respondents could choose more than one option

3.6 Those that had a Business Plan

Most of the women entrepreneurs studied (60.7%) did not have a business plan. This is an information need since such women need to be sensitized about the importance of a business plan and guided on how to develop one.

3.7 Who Developed the Business Plans

As shown in table 3.6, majority of the women entrepreneurs (56.7 %) sought external help from relatives and friends to develop their business plans. Details are in table 3.6.

Table 3.6: *Who Developed the Business Plans*

Who developed the Business Plan	Number of Respondents	Total Number of Participants	Percentage
My friend/ Relative	85	150	56.7%
Myself	20	150	13.3%
Others	20	150	13.3%
A consultant	5	150	3%

3.7 Why some Women Entrepreneurs did not develop the Business Plans themselves

Of the 150 participants studied, 24% did not know how to develop a business plan, while 15% felt they did not need one. Therefore, women entrepreneurs need training on how to develop business plans but additionally, they need awareness about the importance of a business plan.

3.8 Source of Startup Capital

As shown in table 3.9, most women entrepreneurs (84%) and 41%) used personal savings and borrowed funds/gifts from relatives to start their businesses respectively. Therefore, there is need to provide women with information about other sources of business startup funds that are available. This will motivate and aid many more women to start up and expand their businesses. *Merabu from Nakawa Market, a vegetable vendor when asked where she got the money that she used to start her business said “I had saved little money in my” “safe box” as savings to start a business. I started small with 300,000 UGX but I have not ventured into getting a loan and I will never because their interest is high and I fear losing my property.* Details about feedback given on the source of startup capital is given in table 3.8.

Table 3.8: *Source of Startup Capital*

Source	Number of Respondents	Total Number of Participants	Percentage
Personal savings	126	150	84%
Borrowed / gift from a relative	61	150	40.7%
Household /spouse	22	150	14.7%
A loan from financial institutions	12	150	8%
Others	-	150	

Note: Respondents could choose more than one option

3.9 Ownership of Business Location

Most participants (74%) were renting. Therefore there is need for information about available business locations and how to choose the best one for a given business.

3.10 Basis of Decision on Business Location

Half of the participants (50%) were referred to the business location by a third party and the rest made educated guesses. This means that startup women entrepreneurs need information on suitable business locations to avoid charges by middle men and sometimes being conned. Details about the basis for the business location are given in table 3.9.

Table 3.9: *Basis of Decision on Business Location*

Basis of choosing the Business Location	No. of Respondents	Percentage
My friends had business there	51	34%
The place had many customers	39	26%
Just thought that it was a good place	27	18%
Advised by an experienced entrepreneur	24	16%
Others	9	6%
Total	150	100%

3.11 Number of Registered Businesses

The study also sought to find out how many of the women entrepreneurs that participated in the study had registered their businesses. Majority of the women entrepreneurs (62%) had formalized their businesses. However, 37.3% were unregistered and these need information on how and where to register.

3.12 Reasons for Registering their Businesses

The reasons for registering their businesses for the 62.7 % registered include; complying with the law (26%), accessing loans (32.7%), to avoid harassment from law enforcement agencies (26%), for security and expansion of business (21.3%) and to make the business known (22%). They noted that the registration exercise is easy but they need accurate information on types of fees they are supposed to pay to local councils and Kampala Capital City Authority (KCCA). Details are given in table 3.10

Table 3.10: *Reasons for Registering their Businesses*

Reason	Number of Respondents	Total Number of Participants	Percentage
Access to loans	49	150	32.7
To comply with the law	39	150	26
To avoid harassment from law enforcement agencies	39	150	26
To make my business known	33	150	22
Security and expansion	32	150	21.3
To separate business from personal activities	1	150	0.6

Note: Only those who had registered enterprises

Given that (32.7%) registered their businesses to be able to access loans from commercial banks and micro finance institutions. There is need for information on where and how to access loans for businesses of women small scale startups.

3.13 Reasons for Not Registering their Businesses

Less than a half (36.7%) of those who were not registered said that they did not see the need, 18% lacked information on registration procedures (18%) and 6.7% cited failure to afford registration fees. This shows that there is need to provide information to startup women entrepreneurs about the importance of registering their businesses and the registration procedure.

3.14 Possession of Trading License

Most of startup women entrepreneurs had trading licenses (82.7%). This is because it is a prerequisite for any entrepreneurs to operate in any market. Kampala Capital City Authority (KCCA) carries out routine checks and closes down all unlicensed businesses. However, the 17.3% that is unlicensed needs to be sensitized about the need for a trading license and how to get one.

3.15 How Information about Getting a License was got

As shown in table 3.16 more than a half of the participants studied got information about procedures for getting a license from third parties. Hence, making such information easily accessible to them will eliminate middlemen in the chain of securing/ getting a license, which might save them, extra cost and time.

Table 3: 11: *How Information about Getting a License was got*

Procedure	Number of Respondents	Total Number of Participants	Percentage	
Through market team leaders	85	150	56.6	100
Through local leaders	69	150	46	100
Through role models	30	150	20	100
Through friends	20	150	13.3	100

Note: Respondents could choose more than one option

3.16 Weekly Revenue in the first three Months of Operations

Majority of the participants (35%) were earning nominal revenue (0-250,000 UGX). Another considerable big number was uncertain about how much revenue they were earning. This means they need information and training on basic book keeping. Details about the amount of weekly revenue participants were getting are given in table 3.12.

Table 3.12: *Weekly Revenue in the first three months of Operations*

Revenue	No of Respondents	Percentage
0-250,000	52	34.7%
Uncertain	36	24%

Personal information	13	8.7%
510,000-1,000,000	12	8%
Incurred losses	11	7.3%
260-500,000	11	7.3%
>1,000,000	8	5.3%
Did not give any answer	7	4.7%
Total	150	100%

3.17 Current Weekly Revenue

Majority of the participants were earning the same amount of money they were earning in the first three months of operation. There was a slight increase in earnings in the category of 510,000-1,000,000 and above 1,000,000 shillings. This means that either the growth of women's startup enterprises is slow or they lack skills in book keeping. Details about the amount of weekly revenue participants were earning at the time of the study are given in table 3.13.

Table 3.13: *Current Weekly Revenue*

Revenue	No of Respondents	Percentage
0-250,000	52	34.7%
Uncertain	24	16%
510,00- 1,000,000	21	14%
Personal information	18	18%
260-500,000	17	11.3%
>1,000,000	9	6%
Did not give any answer	5	3.3%
Incurred losses	4	2.7%
Total	150	100%

3.18 Person Responsible for Making Business Decisions

Of the 150 participants studied, 95.3 % of the participants make business decisions themselves. This implies that they can easily take up use of information provided to support decision making in their businesses if it is available and easy to access. However, some participants (18.7%) revealed that their husbands are the major decision makers in their businesses while 5.3% take decisions with their husbands. This means that business information targeting startup women entrepreneurs should also be accessible to key third parties like husbands, fellow entrepreneurs including male entrepreneurs and mentors since they are sometimes part of the decision-making process for women entrepreneurs. Details of the responses are given in table 3.14.

Table 3.14: *Person Responsible for making Business Decisions*

Decision Maker	Number of Respondents	Total Number of Participants	Percentage	
Business owner	143	150	95.3	100
Husband take main decisions	28	150	18.7	100
Consult fellow entrepreneurs	12	150	8	

With friends	10	150	6.6	100
With my husband	8	150	5.3	100
With my mentors	8	150	5.3	100
Others (my mother, relative)	4	150	2.7	100

Note: Respondents could choose more than one option

3.19 Business Decisions Taken

The most regular decisions taken by women entrepreneurs are pricing (85.3%) and restocking (60.7%). Thus, they need up-to-date information on commodity pricing and the demand and supply trends of various goods they deal in. Details about the distribution of responses about the business decisions taken are given in table 3.15.

Table 3.15: *Business Decisions Taken*

Decisions	Number of Respondents	Total Number of Participants	Percentage	
To change product prices	128	150	85.3	100
To restock	91	150	60.7	100
To diversify products	77	150	51.3	100
To get a loan	29	150	19.3	100
To hire more employees	24	150	16	100
Others (To get products on Credit, time management)	15	150	10	100
Selecting a business location	13	150	8.7	100

Note: Respondents could choose more than one option

3.20 Source of Information to guide Decision Making

Majority of the participants (78%) consult mentors / fellow entrepreneurs for guidance on decision making. This means that one of the key support mechanism needed by women entrepreneurs is facilitating consultation with mentors and peers since this is already used a lot in business management.

Table 3.16: *Source of information to guide Decision Making*

Source of Information	Number of Respondents	Total Number of Participants	Percentage	
Consult mentors/ fellow entrepreneurs	117	150	78	100
From investment clubs	63	150	42	100
From newspapers, TVs and Radios	32	150	21.3	
From advisory business florans like Pakasa	28	150		
From financial institutions	24	150	16	100
Others (specify) Use brains	20	150	13.3	100
Business information service providers	11	150	7.3	100

3.21 Those who would like to receive Business Development Information

Of the 150 participants studied, 93% would like to receive business development information to enhance their decision making in order to increase chances of success for their startups. This shows that majority of the startup women entrepreneurs are interested in being given business development information

3.22 Preferred Ways of Receiving Business Development Information (BDI)

The most preferred means of receiving business development information are Voice SMS (52%), followed by text SMS (24%) and radios with 12.7%. This means that most startup women entrepreneurs prefer to receive information as Interactive Voice Response (IVR) and SMS. Details of the responses are given in table 3.17.

Table 3.17: Preferred Ways of receiving BDI

Preferred Ways	Number of Respondents	Percentage
Mobile phone voice SMS	78	52 %
Mobile phone text SMS	36	24%
Radios	19	12.7%
Investment clubs	8	5.3%
Others (Social media, churches and face to face)	6	4%
Internet	3	2%
Total	150	100

3.23 Willingness to pay for Business Development Information

Majority of the participants (76%) are willing to pay for business development information. This means that there is a potential to offer business development information services commercially.

3.24 Types of Business Development Information Needed

Most participants were interested in information about developing a business plan (35.3%) market prices (28.7%), availability of products (18.7% and sources of loans (9.3%). The existing research on business development services is not gender disaggregated.

Table 3.18: Types of Business development Information need

Type of BDI	Number of Respondents	Percentage
Developing a business plan	53	35.3%
Market prices	43	28.7%
Availability of products	28	18.7%
Source of loans	14	9.3%
Others (How to market products, use mobile phones, book keeping &how to grow their business	7	4.7%
Taxation	5	3.3%

Total	150	100
--------------	------------	------------

3.25 Problems faced at Start-up for Women Led Businesses

The major problems women startups face include; getting customers (64.7%), getting startup capital (68%) pricing their goods (50%), developing a business plan (33.3%) and how to register a business (18.7%). Details are given in table 3.19.

Table 3.19: *Problems Startup Women Entrepreneurs face*

Problem faced	Number of Respondents	Total Number of Participants	Percentage	
Getting startup capital	102	150	68	100
Getting customers	97	150	64.7	100
Fixing prices of products	75	150	50	100
Coming up with a business idea	61	150	40.7	100
Developing the business plan	50	150	33.3	100
Balancing work and family	45	150	30	100
Business registration	28	150	18.7	100
Hiring right staff	8	150	5.3	100
Premise/ location acquisition	7	150	4.7	100

Note: Respondents could choose more than one option

Nabunya who trades in groceries in Nakasero market when responding to the question about the problems they face in their businesses said that they lack security/collateral when requesting for loans. Nabunya's problem is shared by so many other small scale women entrepreneurs in Uganda/Africa given that majority of the women in these societies do not own property and to get a loan in the bank or Microfinance Institution (MFI) or investment clubs, you need collateral. Banks/MFIs ask for land, a house, farm, nice furniture, fridge, Gas cooker and others. When one does not have such, they do not get the loans. Therefore, startup women entrepreneurs need information on how to access cheap loans with less stringent collateral requirements, how to price their products, how to access markets for their products and how to develop business plans.

3.26 How Women Startup entrepreneurs address the problems they face

In response to how they have addressed the problems they face in their businesses, the following solutions were given: providing good customer care such as using a convincing language and giving customers incentives such as bonuses; seeking advice from/consulting fellow entrepreneurs/mentors and friends; patience; determination (persistence, perseverance) and resilience; employing relatives; trusting in God; getting loans from banks or relatives and friends; going for formal training; reducing prices compared to those charged by competitors and refraining from selling on credit. This shows that women entrepreneurs need information on customer care, credit facilities, training opportunities and pricing.

3.27 Challenges faced in Running the Businesses

Most entrepreneurs continue to face the challenge of getting capital to run their businesses (38%) which is also faced during startup. They also face a challenge of being able to keep business records (24%) and getting reliable suppliers (19.3%). In addition, balancing work and family was identified as a challenge by some participants (10%). They revealed that balancing work and family is more

challenging for them than it is for men led businesses. Social norms still require women to shoulder most housekeeping and child caring responsibilities. Details about the responses on the challenges faced are given in table 3.20.

Table 3.20: *Challenges faced in running the Business*

Challenge	Number of Respondents	Percentage
Getting additional capital to expand	57	38%
Keeping business records	36	24%
Getting reliable suppliers	29	19.3%
Others (Balancing work and family)	15	10%
Getting customers	13	8.7%
Total	150	100

3.28 Measures employed to overcome the Challenges faced Running the Business

The key measures taken by women entrepreneurs to address the challenges faced include; getting loans from banks (60%), getting reliable suppliers (30%), diversifying stock (26%), prayers (trusting in God) (26.7%), changing location (23.3%), and persistence and patience (20%). This means women entrepreneurs need information on where to get credit and requirements, potential suppliers, demand trend of products and advice on where to locate their businesses.

Table 3.21: *Measures employed to overcome the challenges faced running the Business*

Measures Undertaken	Number of Respondents	Total Number of Participants	Percentage	
Got a loan from the bank	90	150	60	100
Collaborated with reliable suppliers	45	150	30	100
Diversified/ broadened my stock	40	150	26.7	100
Trusting in God	40	150	26.7	100
Changed location to a place with more customers	35	150	23.3	100
None	32	150	21.3	100
Persistence and patience	30	150	20	100
Sometimes evade taxes	3	150	2	100

Note: Respondents could choose more than one option

3.29 Ownership of Mobile Device

Majority of the participants had a mobile device (96%), since it was a selection criterion and only six respondents (4%) refused to disclose. This means that startup women entrepreneurs can easily access and utilize business development information efficiently if made available via mobile technology.

3.30 Type of Mobile Device owned

Majority of the women entrepreneurs owned basic phones (98%) followed by smart phones (33.3%) and laptops (20%). This means that information services for women entrepreneurs should be accessible via basic phones.

Table 3.22: *Type of Mobile Device owned*

Type	Number of Respondents	Total Number of Participants	Percentage	
Basic phone	147	150	98	100
Smart phone	50	150	33.3	100
Lap top	30	150	20	100
Tablet	1	150	0.7	100

Note: Respondents could choose more than one option

3.31 Mobile Services Used by Startup Women Entrepreneurs

Mobile services most used include; voice calls (97.3%), sending and receiving mobile money (83.3%), text SMS (73.3%) and buying airtime using mobile money (57.3%). Radio was used by 22.7% of the participants. The mobile phone radio is the most convenient to these startup women entrepreneurs since wherever they are they can listen to it. They listen to news programmes and business development programmes like ‘pakasa’-make money and others. Therefore, there is need to merge radio with modern media. It was found out that 19.3% of startup women entrepreneurs use trade Info (MTN UG) and Trade (Airtel UG) services to check commodity prices in various markets. They also use mobile phones to call their suppliers. A representative of women entrepreneurs in Nakasero market said that she uses mobile phone services like voice calls and SMS to communicate with her suppliers, customers and fellow business colleagues on the go.

Table 3.23: *Mobile Service Used*

Mobile service	Number of Respondents	Total Number of Participants	Percentage	
Voice calls	146	150	97.3	100
SMS	110	150	73.3	100
Surfing	40	150	26.7	100
Send money through mobile money	125	150	83.3	100
Receiving money through mobile money	125	150	83.3	100
Buying airtime using mobile money	86	150	57.3	100
Surfing	40	150	26.7	100
Accessing news & weather forecasts (Radio)	34	150	22.7	100
Accessing market information	29	150	19.3	100
Others		150		100

Note: Respondents could choose more than one option

3.32 Startup Women Entrepreneurs Interested in Receiving Business Development Information on their Mobile Devices

Majority (89%) of the women entrepreneurs are interested in receiving information on their mobile devices. This implies that they can utilize the services efficiently if made available to them. Details about the responses are given in table 3.24.

Table: 3. 24: *Women Entrepreneurs Interested in Receiving BDI on their Mobile Devices.*

Response	Number of Respondents	Percentage
Interested	81	54%
Very interested	53	35.4%
Not Interested	8	5.3%
Neutral	8	5.3%
Total	150	100%

3.33 Kind of Information Startup Women Entrepreneurs would like to receive

They key information women entrepreneurs would like to receive include; suppliers of products, financial support services, product prices, and sources of markets for products. Financial support services have been identified by researchers as the most pressing information needs of startup women entrepreneurs. Details are given in table 3.25.

Table 3.25: *Kind of information startup women entrepreneurs would like to receive*

Type	Number of Respondents	Percentage
Suppliers of products	54	36%
Financial support services	34	22.7%
Product prices	20	13.3%
Source of market for my products	15	10%
Others	13	8.7%
Coming up with a suitable business idea	9	6%
Business locations	5	3.3%
Total	150	100%

3.35 Those that currently receive Business Development Information (BDI) through Mobile Devices

Forty four percent (44%) currently receive business development information on their mobile phones. Therefore, a considerable number of women entrepreneurs are already familiar with accessing business development information through the mobile phone. Hence, it will not be a challenge to get them to access information needed to support decision making through their phones.

3.36 Information Received and the Service Provider

Most women entrepreneurs currently rely on mass media and financial institutions most of which are not focused more specifically on gender aspects, for their business development information as

indicated in the results in table 3.26. The findings of the study show that all respondents were not aware of key service providers of business development information for small scale women entrepreneurs such as Uganda Women Entrepreneurs Association Limited (UWEAL), the National Association of Women's Organizations in Uganda (NAWOU), the Women of Uganda Network (WOUGNET), etc. Hence they need information about the availability of these services and how they can access them.

Table 3.26: *Information received and the Service Provider*

Type of information	Service Provider
Availability of products	Televisions (NTV and Bukkede)
Business management	Bukedde Television and Financial institutions business floras- Pakasa
Coming up with a business idea	Financial institutions and TVS-UBC, NBS, Bukkede
Coming up with a business plan	Financial institutions and TVs
Communicating with customers	Telecom companies (MTN,Airtel, UTL,and Orange)
Financial support services	Banks and Micro Financial Institutions (Pride, Finca and investment clubs).
Keeping business records	Television (Bukedde and NTV,UBC, NBS)
How to market products	Television (Bukedde and NTV,UBC,NBS)
Commodity prices	Telecom companies (MTN, Airtel) and Televisions (NTV, Bukedde, NBS and UBC)
New products	Airtel Telecom
Supplier of products	Airtel Telecom

Note: This was an open ended question

4. Discussion

4.1 Information needed to support the decision making process of start-up women entrepreneurs

From literature review and the survey carried out, the information needed to support the decision making process of start-up women entrepreneurs includes the following;

How to develop a business plan: Most of the women entrepreneurs surveyed (61%) did not have a business plan. This is an information need since such women need to be sensitized about the importance of a business plan and guided on how to develop one. Majority of women entrepreneurs (85%) solicited for help from third parties to develop a business plan. A business plan is a tool that can facilitate startup women entrepreneurs to get startup capital and loans to expand their businesses (Rangogo, 2014) from investment clubs, micro finance institutions and banks. It can be used to monitor growth and to control their businesses. Therefore, more women entrepreneurs need support on how to develop business plans.

Source of funds and the different requirements. Majority (84%) of the women entrepreneurs that participated in the study, used personal savings or borrowed from friends or relatives (40.7%), and 38% noted that they had a challenge of getting capital to expand their businesses, 23% indicated getting capital to expand their businesses as one of the challenges they face while 23% said they

would like to receive information on sources of financial support services on their mobile devices. Therefore, information on relevant sources of business funding is an information need. Financial constraints negatively affect women's motivation to engage in entrepreneurship. Lack of access to finance has been overwhelmingly investigated as a hurdle limiting enterprise startup and growth especially among women (Rangogo, 2014; ILO, 2014, GEM Report, 2014 and Mulira *et al*, 2010). The United Nations report on trade and development titled: 'a survey on women's entrepreneurship and innovation noted that the primary force holding women and men back from achieving their entrepreneurial dreams is the difficulty of accessing capital (UNCTAD, 2013). The same report noted that access to finance is one of the primary challenges entrepreneurs face when they first start their business (UNCTAD, 2013). The UNCTAD report also referred to access to finance as the key obstacle to business growth and innovation today. Startup women often lack information about how to access loans, lack the necessary collateral to obtain one and /or face discriminatory laws or practices related to finance and credit (Common Wealth Secretariat, 2013; Zororo, 2011). In addition, women entrepreneurs have financial social demands that compete with business capital, leading to a diversion of capital away from business needs (Makokha, 200).

Choosing a business location: Majority (74%) of the women entrepreneurs surveyed were renting hence information on how to choose a good business location for different types of businesses would be useful to them. Currently, majority depend on their intuition and referrals from friends/family which may not be accurate. There are numerous stories of women killings, harassment and rape for women entrepreneurs in the informal sector though not much is documented (Saskia, 2013). This creates stress, constant fear and limits the number of women venturing into starting their own businesses (Rajender *et al*, 2012).

How to register a business. Although 62% of the women entrepreneurs had registered businesses, the 38% that was not registered is big and should be availed with information on how they can register their businesses. This is important given that it is a statutory requirement and more so registered businesses enjoy a lot of advantages as opposed to the non-registered ones like access to loans. However, most of the women entrepreneurs are not aware of the statutory obligation and benefits of registering a business. Of the 150 women entrepreneurs surveyed, 38% said they did not see the need of being registered while 18% did not know what to do.

How to get a trade license: Although 83% had trading licenses, information on the importance of a trade license and how to get one is important for women entrepreneurs. Currently women entrepreneurs go through middle men such as local leaders, market leaders and friends to get guidance on how to get trading licenses. This could be taking them a long time and costing them a lot of money. An enterprise is considered formalized only after the local authorities have acknowledged its existence for example after an entrepreneur has paid market dues or local council fees to operate in given market or area. More so, registered business stand a better chance of getting loans for growth than unregistered ones.

Guidelines on basic book keeping: All entrepreneurs need skills on book keeping but the surveyed women entrepreneurs lacked book keeping skills. Twenty four percent (24%) of the surveyed women entrepreneurs were not certain about how much their weekly revenue was in the first three months of their operation, while 4.7% did not respond to this question. Additionally, 24% said they had challenges with keeping business records.

Information on up-to-date market prices and potential buyers: Twenty nine percent (29%) of the women entrepreneurs surveyed said they need information on market prices, while 65%

reported that they had a challenge of getting customers. This concurs with previous research findings conducted in Uganda by Ikoja (2001) where marketing information was rated the highest information need for rural women small scale entrepreneurs. However, Ikoja's (2001) study was not gender disaggregated.

4.2 Mobile Technology as the preferred means of Accessing Information needed for Effective Decision Making by Startup Women Entrepreneurs

The study also investigated the extent to which mobile technology would facilitate access to information needed for effective decision making by startup women entrepreneurs. From the findings, ninety six percent (96%) of the participants had mobile devices (basic phone-98%, smart phone-33.3%, laptop-20% and tablet-0.7%). Seventy three percent (73%) were using the mobile phones for voice calls, 73% for SMS, and 83% for mobile money, accessing news and weather forecast-20% and accessing market information-19%. Additionally, thirty four percent (34%) of the participants were very interested in receiving business development information on their mobile device, and 54% were interested in receiving business development information on their mobile device. Forty four percent (44%) were already receiving business development information on the mobile devices mainly from telecom companies, the media and financial institutions. Therefore, mobile technology can to a great extent facilitate access to information needed for effective decision making by startup women entrepreneurs.

However, although technology can save women entrepreneurs some costs, increase profitability and cultivate important networks beyond borders, a section of women entrepreneurs in Uganda still fear using technology (Namono, 2016). The United Nations report on trade and development titled: 'a survey on women's entrepreneurship and innovation,' reported that few women are more likely to use social media accounts such as Facebook and Twitter for business marketing and communications than men (UNCTAD, 2013). In Uganda specifically, 28 per cent of women entrepreneurs use social media networks compared with 24 per cent of men (UNCTAD, 2013).

Conclusion

This paper has identified the information women startups need to improve the quality of their decisions in order to increase their success rates. It has also demonstrated that mobile technology has a potential to facilitate access to this information. Therefore, the quality of decisions made by start-up women entrepreneurs can be improved through provision of information necessary to support decision making via the mobile phone which in turn can increase the success rate of women led start-ups.

Future Work

In the near future, we plan to conduct a qualitative study to supplement the results of this largely quantitative study. The results of the study and the qualitative study will form the basis for the development of a mobile decision enhancement model for startup women entrepreneurs.

References

1. Aker Jenny C and Mbiti M.Isaac. (2010). Mobile Phones and Economic Development in Africa. *Journal of Economic Perspectives*. Volume 24. 207-232.2010.

2. Bernad et al (2014). Assessment of information needs of rice farmers in Tanzania; A case study of Kilombero District, Morogoro ejournal.
3. Bulsara H.P and Pandurengan. V (2007): Entrepreneurship: Issues and Challenges, 2007.
4. General Entrepreneurship Monitor Global Report, by José Ernesto Amorós, Niels Bosma and Global Entrepreneurship Research Association (GERA). 2014.
5. Jagero N and Kushoka I, (2011): Challenges Facing Women Micro Entrepreneurs in Dar Es Salaam, Tanzania; International Journal of Human Resource Studies; Macrothink Institute.
6. Keen, P.G.W. & Sol, H.G. (2008). Decision Enhancement Services: Rehearsing the Future for Decisions that Matter. Delft: IOS Press.
7. Kikooma F.J (2010): Negotiating enterprising identities: African women entrepreneurs' stories of challenge perseverance and triumph, *China-USA Business Review*, Vol. 10, Issue 7, pp. 573, 2011.
8. Kunene, T.R. (2008). A critical analysis of entrepreneurial and business skills in SMEs in the textile and clothing industry in Johannesburg, University of Pretoria.
9. Komunje. M, Rwashana A.S, and Nabukenya J (2012): Comparative Analysis of Mobile Phone Usage among Women Entrepreneurs in Uganda and Kenya: African Journal of Computing & ICT. 5(5), 2012, 74-86, 2012.
10. Laudon K.C and Laudon P.J Essentials Management Information systems: Prentice-Hall, Inc.A Pearson Education Company, Upper Saddle, 2002.
11. Makokha, M. (2006). Gender and entrepreneurship in Kenya: a comparative analysis of male- female's start up motivation, individual characteristics and perceptions of business success. PHD thesis: University of Dar es Salaam.
12. Minniti M (2010): Female Entrepreneurship and Economic Activity: 2010 European Association of Development Research and Training Institutes 0957-8811 295, European Journal of Development Research Vol. 22, 3, 294–312. 2010.
13. Minniti, M., Allen, I. E. & Langowitz, A. (2006). Global Entrepreneurship Monitor 2005 Report on Women and Entrepreneurship. Babson Park, MA: The Center for Women's Leadership at Babson College.
14. Mulira, N. Kyeyune, A., and Ndiwalana, A. (2010). Uganda ICT Sector Performance Review 2009/2010. Towards Evidence based ICT Policy and Regulation. (Paper13, 2010.Available at: <http://www.researchictafrica.net/publications.php>. Retrieved on 12 .4 2015.
15. Namatovu R; Dawa, S; Katongole C and Mulira F (2012): Understanding Women Micro and Small Business Entrepreneurs in Uganda. Investment Climate and Business environment Research Fund Report NO. 01/12, Dakar, 2012.
16. Kello-Obura, C., Minishi-Majanja, M.K, Cloete, L.M. & Ikoja-Odongo, J.R. (2008). Business activities and information needs of SMEs in northern Uganda: prerequisites for an information system. Library Management, Vol.4, No.5.
17. Langowitz, N. and Minniti, M. (2007): the Entrepreneurial Propensity of Women. Entrepreneurship Theory & Practice, Vol. 31 No. 3, pp. 341-64.
18. Namono, L. (2016). Women entrepreneurs still fear using technology - ex minister. Retrieved on 16th August from: <http://www.monitor.co.ug/Business/Technology/Women-entrepreneurs-still-fear-using-technology---ex-minister/688612-3129422-t1a99tz/index.html>.

19. Rajender Kumar, Sarangdevot, S.S. and Sharma, Rakesh Kumar (2012) Problems and Prospects of Women Employees in BPO Sector: A Study of Some Select BPOs in Delhi and NCR. The IUP Journal of Entrepreneurship Development, Vol. IX, No. 2, June 2012, p. 23-37.
20. Rangongo. M (2013): Contribution of Women-Owned Small Business towards Economic Development in the Leppele-Nkumpi Municipality. 1CDFET 2013, Conference Proceedings, Limpopo Province, South Africa. 2013.
21. Sandas Frank (2012): Transforming Ugandan Women's Livelihoods through Entrepreneurship. Master's thesis, Katholieke Universiteit Leuven. 2012.
22. Saskia Vossenbergh (2013) Women Entrepreneurship Promotion in Developing Countries: What explains the gender gap in entrepreneurship and how to close it? Working Paper No. 2013/08.
23. TeleGeography (2015). Retrieved on 2nd November 2015 from: <https://www.telegeography.com/products/commsupdate/articles/2015/02/17/uganda-now-has-18-5-million-mobile-money-users/>
24. Uganda Communication Commission: <http://www.ucc.co.ug/> accessed on 2 May 2015.
25. UNIDO (2005): United Nations Industrial Development Organization: Available at http://www.unido.org/en/resources/publications/flagshippublications/annualreport/2005.html?ucg_no64=1%2FDATA1%2FDATA1%2FVacancy%2Foffice%2Ffileadmin%2Fimport%2Fuserfiles%2Ftimminsk%2Findex.php. Accessed on 10/11/2015.
26. Van de Kar, E., & Verbraeck, A. (2008). Service Systems Engineering: How to design smart mobile service systems. Delft.
27. Wang, Y. (2008). A Studio Based Approach for Business Engineering and Mobile Services. Delft: Doctoral Dissertation, Delft University of Technology.
28. Zororo, M. (2011). Characteristics and Motivation in Female Entrepreneurship. Case of Botswana. University of Botswana Journal.