

Determinants of SMMEs growth in post-war communities in developing countries

Testing the interaction effect of government support

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Abstract

Purpose – The purpose of this paper is to test the interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and small, medium, and micro enterprises (SMMEs) survival in post-war communities in Northern Uganda.

Design/methodology/approach – Cross-sectional research design was used in the study and quantitative data were collected from 304 SMMEs located in Gulu District using a semi-structured questionnaire. Structural equation modeling (SEM) through the use of analysis of moment structures was adopted to establish the interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in Northern Uganda. Furthermore, Pearson's correlation analysis was used to show the association between the variables under study.

Findings – The results revealed that there is a significant interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in Northern Uganda. Besides, the results indicated that business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and government support have significant and positive impacts on SMMEs survival in post-war communities in Northern Uganda.

Research limitations/implications – The study employed cross-sectional research design, thus, ignoring longitudinal study approach. Besides, the sample was selected from only Gulu District, therefore, leaving out other Districts located in Northern Uganda.

Practical implications – Advocates of recovery programs and interventions in developing countries should consider government support as a vital factor in promoting business skill, capital adequacy, access to finance, access to market, and entrepreneurial education in order to enhance SMMEs growth in post-war communities. In addition, governments in developing countries should offer investment incentives and tax waivers to infant SMMEs in post-war communities like in Northern Uganda.

Originality/value – The study examined the interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in developing countries. Thus, to the best of the authors' knowledge, this is the first attempt to test the interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in Northern Uganda. The use of government support as a moderator in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival is scarce in entrepreneurship literature and theory. This creates uniqueness in this study.

Keywords Entrepreneurial education, Access to finance, Government support, Northern Uganda, Post-war communities, SMMEs growth

Paper type Research paper



Introduction

The dynamic role of small, medium, and micro enterprises (SMMEs) as an engine for growth and development, especially in developing economies has long been recognized. Scholars like Abor and Quartey (2010) argue that SMMEs greatly contribute to GDP and create jobs in developing countries (see also the World Bank, 2015). This is supported by Ayyagari *et al.* (2007) who observe that SMMEs foster economic growth, innovation, employment, and poverty alleviation in under-developed communities (see also Garikai, 2011).

Existing evidence by Khan and Jawaid (2004) reveal that SMMEs contribute over 40 percent to GDP and offer more than 90 percent of the jobs in most developing economies world-wide. Contextually, data from Uganda Investment Authority (2016) indicates that in the financial year 2015/2016, SMMEs contributed about 6.3 percent to GDP and created over 80 percent of the jobs in Uganda. Thus, Gordon and Brayden (2014) argue that since SMMEs continue to be the backbone of economic growth and equitable development in both developed and developing economies, there is a need for the government to support their survival, growth, and sustainability.

Scholars like Olsen (1983) observes that business environment is an intricate and dynamic concept, which embraces the independent actions of all institutions, organizations, and individuals that directly or indirectly impact on the operations of business organizations. From the foregoing, government plays a great role in creating and supporting a conducive business environment within which business takes place in an economy (Adaramola, 2012). Thus, to ensure the survival, growth, and development of SMMEs, government support towards their operations is critical.

According to Sana and Abbas (2005), government support in developing countries, especially in post-war countries seldom promote schemes and incentives support systems, which leads to the establishment, growth, and development of SMMEs (see also United States Agency for International Development (USAID), 2010; Dandago and Usman, 2011; Shariff *et al.*, 2010). More so, Chew and Chew (2008); and Spurge and Roberts (2005) also argue that government support that consist of tax reduction and exemption, fiscal fund aid, and access to loans strongly impacts on the establishment, expansion, and performance of SMMEs in developing countries (see also SMEA-Japan, 2010). Similarly, Chen (2006) connotes that provision of regulatory support such as law and order to offer legal assurance regarding ownership and conducive business environment, is helpful for the survival and growth of SMMEs, especially in developing economies.

Drawing from the post-colonial era, SMMEs in Northern Uganda have faced numerous challenges, which have affected their establishment, growth, and development. The situation was further worsened by the 21-years' old Lord Resistance Army (LRA) rebel activities. A study by Okello-Obura *et al.* (2008) established that SMMEs in Northern Uganda operates in a business environment that is characterized by lack of business information, lack of market, lack of entrepreneurial knowledge and skills, poor physical resources and information infrastructure, lack of government amenities (business information archives), limited access to business finance, and double taxation regime, which have limited their survival, growth, and development.

Whereas several studies have examined the impact of factors like business skills, capital adequacy, access to finance, access to market, and entrepreneurial education on SMMEs establishment, growth, and development in developing countries, they fail to test the interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival, especially in post-war communities in developing countries. The use of government support as a moderator in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival, especially in post-war communities in developing countries is sparse in the entrepreneurship literature and theory.

The Schumpeter theory views entrepreneurship as innovation and not imitation arguing that the entrepreneur moves the economy out of the static equilibrium. Correspondingly, Schumpeter (1949) observes that the entrepreneur moves the economic system out of the static equilibrium by creating new products or production methods, thereby rendering others obsolete through the process of “creative destruction” (creating uncertainty), which is the driving force behind economic development. In the same vein, Schultz (1975) also asserts that entrepreneurship is the ability to coordinate reallocation of resources efficiently, and it follows that agents have different degrees of entrepreneurial ability. Schultz further argues that in disequilibrium, individuals know that opportunities to increase satisfaction exist but the reallocating process requires time. Consequently, a better allocation of resources can be achieved either by experimenting (trial and error) or by investing in human capital. Besides, Kirzner (1997) states that markets are not always clear with no perfectly informed representative agent. Thus, for change to occur, the entrepreneurs need incentives, which comes from the difference among agents in terms of information and knowledge. Indeed, entrepreneurship consist of the creation of a previously unperceived opportunity for profit, the alertness to that previously untapped opportunity, and taking of action to achieve the opportunity.

Therefore, in order for entrepreneurs to realize equilibrium in the market to level competition by achieving the different conditions based on Schumpeter (1949), Schultz (1975), and Kirzner (1997), the role of government is very important in promoting the activities of entrepreneurs. The government helps by creating conducive environment for fair competition in the market and opens up more opportunities for the growth of SMMEs within the economy, especially in under-developed markets like in Uganda.

Thus, the main purpose of this study is to test the interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in developing countries with a specific focus on Gulu District, Northern Uganda. This is premised on the argument that government support through the creation of a conducive business environment and provision of incentives support systems and schemes strongly impacts on SMMEs growth and sustainability in developing countries.

Literature review and proposition development

Business skills and SMMEs survival

Previous studies such as Agyei-Mensah (2011), Ekanem (2010), Deakins *et al.* (2002), and Kazooba (2006) indicate that lack of knowledge and skills among employees and managers of SMMEs to direct finances in a hardy, transparent, and professional way are significant obstacles to their survival and growth in developing countries.

According to Botha (2006), the absence of skills in financial management, human resource management, marketing, and lack of technical operational skills among SMMEs employees and managers are the main cause of their zero performance. Therefore, increases in the stock of business skills that can promote entrepreneurial performance are important for the survival, growth, and development of sustainable SMMEs, especially in developing countries.

Hussain (2000) argues that possession of skills in business management, marketing, finance, record keeping, human relations, and industrial relations by SMMEs employees and managers positively impacts on their survival and growth. Furthermore, Solomon (2004) also states that generic business skills such as preparing financial statements, business plans, and financial literacy attained through training are important for the survival, growth, and sustainability of SMMEs in developing countries.

Additionally, Siekei *et al.* (2013) also note that credit management and budgeting skills among SMMEs employees and managers that promote credit financing and management of loan portfolio enhances performance among SMMEs. The skills help to ensure that loan

liability and interest expenses are minimized by SMMEs that results into growing sales, profits, and smooth business operations.

Conclusively, Smith and Perks (2006) note that business knowledge and skills are important for profitability and sustainability of SMMEs in keeping their business afloat. This leads to competitiveness and hence, growth among SMMEs. Indeed, Kuene (2008) contends that existence of skillful employees and managers is a significant determinant of SMMEs success. Accordingly, we propose that:

H1. Business skills significantly and positively affect SMMEs survival in post-war communities.

Capital adequacy and SMMEs survival

According to Cooper *et al.* (1994), availability of adequate capital enhances the pursuit for resource-intensive growth strategies by SMMEs. This is because slack resources can be tailored to new strategies and practices, which allows SMMEs to pursue new growth opportunities for survival (Penrose, 1959). Indeed, Storey (1994) stipulates that availability of financial capital influences firm growth and performance, especially in developing economies.

Similarly, Siropolis (1997) argues that capital adequacy is critical in supporting functional strategies and making required infrastructural investments by SMMEs through expansion and providing products necessary to meet customer satisfaction. Availability of adequate capital can underpin the effective implementation of entrepreneurial and financial management plans by SMMEs that can lead to their survival and growth.

Findings by Memba (2011) showed that availability of adequate capital for expansion and diversification among 100 SMMEs in Kenya resulted into improved value of their assets, increased sales, and employment of 24,802 workers. Thus, availability of adequate capital is important for achieving performance and growth of SMMEs, especially in developing countries. Therefore, we propose that:

H2. Capital adequacy significantly and positively affect SMMEs survival in post-war communities.

Access to finance and SMMEs survival

Shariff *et al.* (2010) state that poorly functioning financial systems can seriously undermine microeconomic fundamentals of a country because it results into lower growth in income and employment. Accordingly, the World Bank (2010) observes that in most part of the world, especially in developing countries, financial services have helped to increase income, build viable SMMEs, and reduce vulnerability to external shocks. Besides, Beck *et al.* (2013) argue that access to finance is a powerful instrument for self-empowerment, especially among the women who are seen as economic agents of change.

Indeed, finance has been identified in many business surveys as the most important factor determining survival and growth of SMMEs in both developed and developing countries (Beck *et al.*, 2004). Access to finance allows SMMEs to undertake productive investments to expand their businesses and to acquire latest technologies in order to be competitive in the market.

Conversely, Beck and Demircuc-Kunt (2006) elucidate that access to finance for SMMEs is an important factor in experiencing continuous survival and growth. It allows entrepreneurs to innovate, improve efficiency, expand to new markets, and provide millions of jobs. Thus, access to finance and availability of external finance is vital for the growth and development of SMMEs, especially in developing countries.

Similarly, Vos *et al.* (2007) add that access to funding is the lifeblood of any enterprise, which enables it to grow and generate more output and employment (see also Beck *et al.*, 2008; Berger and Udell, 1998).

Furthermore, Organization for Economic Cooperation and Development (OECD, 2006) also suggests that access to finance by an enterprise facilitates access to resources, output growth, employment generation, profitability, efficiency, exports, productivity, and return on assets (see also IFC, 2010). Empirical study by Cooper (2012) found that capital financing and mobilization of savings by microfinance had a positive impact on the growth of SMMEs in Kenya.

Thus, from the foregoing, it can be argued that performance and growth of SMMEs are strongly influenced by access to finance (World Bank, 2010). Here, we propose that:

H3. Access to finance significantly and positively affect SMMEs survival in post-war communities.

Access to market and SMMEs survival

Dhliwayo (2014) postulates that since SMMEs provide not only employment for the community, but also tailor-made products in appropriate sizes and quantities suitable for customers, their proximity to the market helps them to sell their wares and products at competitive prices.

According to Organization for Economic Cooperation and Development (2008a), SMMEs involved in local and cross-border markets experience open access and integration into the lucrative supply chains of international players. Relatedly, Hussain (2000) recommends that strengthening horizontal and vertical linkages between SMMEs and larger firms can improve their market access. In addition, Dzisi and Ofosu (2014) also posit that access to market by SMMEs helps them to gain an in-depth understanding of the market, particularly in regard to their competitors and customers.

Conversely, Chyau (2005) argues that empowering SMMEs to participate in global business through market connectivity, helping them to create and deliver products and services on a global scale, and providing them with access to new markets lead to their survival and growth. Indeed, empirical study by Barnes *et al.* (2006) indicated that access to cross-border trade by SMMEs resulted into increase in their profit and market share, which helped them to survive and grow. Here, we hypothesize that:

H4. Access to market significantly and positively affect SMMEs survival in post-war communities.

Entrepreneurial education and SMMEs survival

According to Jackson (2004), access to micro-credit is not the primary constraint to small enterprise development and growth but instead the lack of information, entrepreneurial knowledge, and skills. Therefore, delivery of entrepreneurial education and business training is the suitable means through which the lack of information, entrepreneurial knowledge and skills can be addressed. This is supported by Becker (2002) who asserts that economic growth depends on the synergy between new knowledge and human capital, which is the main reason for success among large-scale enterprises, mostly in developed countries.

Correspondingly, King and McGrath (2002) state that entrepreneurs with large stocks of capital that includes education and/or vocational training are better placed to adapt to the constantly changing business environment. Additionally, Noe (2002) also observes that enterprises that provide entrepreneurial education to its staff and owner managers, which are innovative in nature, are more likely to produce better performance than those

who ignore entrepreneurial education. This spurs their survival and growth into sustainable SMMEs.

Thus, Guzman and Santos (2001) stipulate that education increases the intrinsic motivation and energizes behavior that lay the foundation for survival and success of SMMEs, especially in developing countries. Indeed, the more the SMMEs owners and managers receive entrepreneurial education, the greater the possibility of their entrepreneurial success and growth of their businesses.

Furthermore, Njoroge and Gathungu (2013) also note that entrepreneurial education influences the choice of risks to be undertaken and heightens the entrepreneur's sense of responsibility and concern for results. Therefore, entrepreneurs with adequate information and knowledge can easily assess risk better than others, which make them to take risk in achieving innovative products for high survival and growth (Keizer *et al.*, 2005).

Previous empirical studies have found a strong link between entrepreneurial education and SMMEs business survival and success. For example, Thapa (2007) found a positive association between entrepreneurial education and small business survival and success. Furthermore, McCormick and Ongile (1996) also discovered a change in productivity, and particularly in the small and medium enterprises sector with a high correlation between entrepreneurial education and the ability of entrepreneurs to carry out their businesses. Here, we propose that:

H5. Entrepreneurial education significantly and positively affect SMMEs survival in post-war communities.

Government support: moderator between determinants of SMMEs survival

Entrepreneurship theorist such as Schumpeter (1949) viewed entrepreneurship as innovation and not imitation, and argued that the entrepreneur moves the economy out of the static equilibrium. Besides, Schumpeter suggested that the entrepreneur moves the economic system out of the static equilibrium by creating new products or production methods, thereby rendering others obsolete. This is the process of "creative destruction" (creating uncertainty), which Schumpeter saw as the driving force behind economic development. Additionally, Schultz (1975) also asserted that entrepreneurship is the ability to coordinate reallocation of resources efficiently, and it follows that agents have different degrees of entrepreneurial ability. Schultz further argued that in disequilibrium, individuals know that opportunities to increase satisfaction exist but the reallocating process requires time. Hence, a better allocation of resources can be achieved either by experimenting (trial and error) or by investing in human capital. Similarly, Kirzner (1997) posited that markets are not always clear and no perfectly informed representative agent exist. Therefore, for change to occur, the entrepreneurs need incentives that comes from the difference among agents in terms of information and knowledge. Thus, entrepreneurship consist of the creation of a previously unperceived opportunity for profit, the alertness to that previously untapped opportunity, and taking of action to achieve the opportunity.

According to OECD (2006), most if not all SMMEs in developing countries face many challenges such as small size of local markets, lack of labor, unsuitability of business premises, poor transport and communication infrastructure, lack of access to reliable market information, unavailability of business advisory services, lack of access to finance, and unfavorable institutional environment among others.

Consequently, Burgess (2002) states that governments around the world have placed increasing importance upon the success of SMMEs by providing increased resources for their survival. This is supported by Kraja *et al.* (2014) who concur that governments in developing countries have directed their efforts in supporting new

businesses, creating incubators for such businesses, doing market research, improving existing infrastructure, fostering private and public partnership, building supportive policies on financing businesses, providing access to markets locally and internationally, fighting against corruption, and creating favorable business climate for SMMEs survival, growth, and development.

Existing empirical studies like Okpara (2010); and Shariff and Peou (2008) indicate that government support influences the survival and growth of SMMEs. Consistent with Nguyen *et al.* (2009), government support to SMMEs is a critical factor for their growth in both developed and developing countries. Indeed, the nature and scope of government support has a direct impact on the performance, survival, and growth of SMMEs (Borges *et al.*, 2009).

Chacuamba (2011) contends that government support through business networks development, development of latent clusters of business activity in rural areas, promotion of social enterprise option to rural communities, ensuring access to high-quality business advice, and provision of marketing support for new and small rural firms enhance SMMEs survival and growth in developing economies. Similarly, the World Bank (2013) indicates that government support aimed at reducing transaction costs can stimulate the survival rate and growth of SMMEs.

More so, direct monetary intervention through provision of subsidized credit and refinancing programs by government that provides lending at below market rates to targeted SMEs, can also allow micro, small and medium enterprises to lower the cost of doing business thereby, spurring entrepreneurship, reducing poverty, lowering income inequality, and stimulating economic growth (Alliance for Financial Inclusion, 2016).

Indeed, government support geared towards creating positive externalities in form of levelled credit markets, security, competition, investment and tax incentives, improving education, training and development, and offering low-cost equitable legal system can create a conducive environment for SMMEs survival and growth (World Bank, 2013). Thus, here we hypothesize that:

H6. Government support significantly and positively moderate the relationship between determinants of SMMEs survival in post-war communities (Figure 1).

Methodology and research procedures

The population for the study was drawn from SMMEs located in Gulu District, Northern Uganda. This is because they represent two-thirds of the total population of

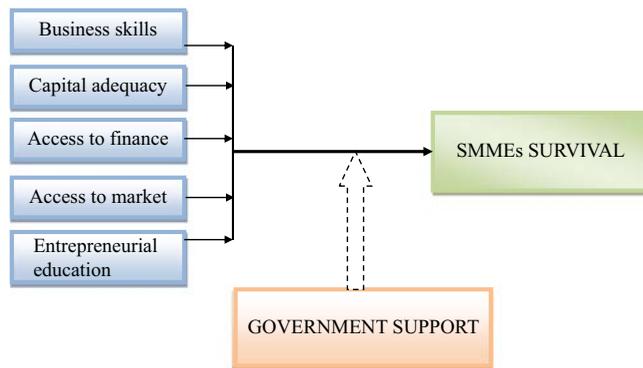


Figure 1.
Conceptual model
for the study

Source: Developed by the authors

businesses in Gulu District. In addition, they are the back bone for livelihood among the post-war communities. Besides, Gulu District was selected for the study because it was highly affected by LRA rebel activities.

Research study design

The study adopted a cross-sectional research design to allow the researcher to collect large amount of data within a short period of time. Quantitative data were collected from SMMEs located in Gulu District to test the moderating effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities.

Population, samples size selection, and procedures

Small businesses do not have a consensually accepted global definition. Their definitions vary across countries and across industries. However, the most common measures used include the following: number of employees, annual turnover, industry, ownership, and value of fixed assets (Agyei-Mensah, 2011). Therefore, the SMMEs used in this study were identified based on sales volume, capital base, and number of employees as recommended by Agyei-Mensah (2011) and contextual definition by Ministry of Finance, Planning, and Economic Development, Uganda (Ernst and Young, 2011; UBOS, 2007). Therefore, the population for the study consisted of SMMEs located in Gulu District. Hence, a total population of 1,272 SMMEs was considered for the study (Gulu District Local Government Report, 2016). Simple random sampling method was used to choose SMMEs that participated in the study. This was intended to give all the SMMEs equal chances of being included in the study. Thus, a total sample of 304 SMMEs arrived at using formulae derived by Yamane (1973) was selected for the study. The sample was arrived at using the formula: $n = [N/1+N(e)^2]$, where; n is the sample size; N the total population; e the tolerable error (0.05 or 95 percent). Therefore, $n = [N/(1+N(e)^2)]$; $n = [1,272/(1+1,272(0.05)^2)]$; $n = 304$. SMMEs were the unit of analysis, while SMMEs owner managers were the unit of inquiry.

Data collection tool and process

Data were collected from the selected SMMEs using a semi-structured questionnaire. A semi-structured questionnaire is a questionnaire with both clearly defined questions and undefined questions used to elicit both defined answers (anchored on measurement scales) and undefined answers (not anchored on measurement scales) from respondents in social science research. The items in the semi-structured questionnaire were anchored onto a five-point Likert scale. The five-point Likert scale was chosen because of its versatility, clarity, simplicity, and its wide use by scholars in social science research (Likert, 1932; Johns, 2010; DeVellis, 2003). The questionnaire developed was uploaded on electronic data collection platform using open data kit software installed on smartphones/tablets that were used to collect data. The data collection exercise was carried out by ten research assistants/enumerators. The questionnaires were directly administered to SMMEs owner managers by research assistants who spoke the local language. Prior to data collection, the research assistants were trained on how to collect data using the electronic data collection platform and a pre-test was done before the main data collection exercise. Besides, the SMMEs selected for the main study were pre-identified and visited prior to the main data collection. The data collection exercise lasted for a period of 35 days, beginning from September 5, 2016 to October 10, 2016.

Data management, processing, and analysis

Data collected from the field using electronic data collection platform were exported into Excel and Statistical Package for Social Sciences (SPSS) data analysis tool. The data were

verified for careless scoring and incomplete responses. Thereafter, data screening was performed to check for errors arising from incorrect data entry, out of range values, missing values, outliers, and normality (Field, 2005). The results showed that there were no major errors and the data were good enough for further statistical analysis. The study used SPSS and ordinary least-square hierarchical regression analysis using R^2 (coefficient of determination) was adopted to explain the predictive power of business skills, capital adequacy, access to finance, access to market and entrepreneurial education on SMMEs survival. In addition, Pearson's correlation analysis was also performed to establish relationships between the variables under study. Furthermore, SEM was used to establish the interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival.

Reliability and validity

Reliability is the assessment of the degree of consistency between multiple measurement items of a variable. The internal consistency of the instruments is measured using Cronbach's α coefficient (Cronbach, 1951). It measures the degree to which there is inter-item reliability and consistency between the levels at which different items measuring the same variable attain consistent outcome or results. Thus, the objective of testing for reliability under this study is to ensure that responses are not too varied across time periods so that a measurement taken at any point in time is reliable. Validity is concerned with the instrument giving actual results of what it claims to measure (Cronbach, 1951; Babbie and Monton, 2002). Indeed, validity is the extent to which the results from the study correspond with reality (Merriam, 1998). It depends on measurements of the constructs developed from the study concept and theories. Before the main study, the questionnaire was pretested to establish the reliability and validity of the questions. The pre-test results revealed that all the items used in the instruments were reliable and valid with α coefficient results above 0.7 and factor loadings of 0.50 and above (Cronbach, 1951). The α coefficients for business skills, capital adequacy, access to finance, access to market, entrepreneurial education, growth, and government support were 0.773, 0.874, 0.751, 0.701, 0.825, 0.866, and 0.782, respectively.

Common method bias

Test for common method bias was carried out based on recommendation by Podsakoff *et al.* (2003). The measurement scales were improved upon during the pilot stage before the main study in order to reduce the biases in the instruments to be used in the final study. Procedural remedy was adopted to test for common method bias in the study. Careful construction of items was carried out. This was done by keeping questions simple, specific and concise, and avoiding double barreled questions (Tourangeau *et al.*, 2000). Thus, common method bias, which causes type 1 and 2 errors, was not a problem in this study.

Testing for moderation/interaction effect

A moderator is the changer of a relationship in a system. This is the changing of a relationship as a function of some moderating influence. Structural equation modeling (SEM) represents an important advance in the study of multiplicative or nonlinear effects because of its ability to properly address the presence of measurement error within a statistical model (Little *et al.*, 2007).

Byrne (2010) states that SEM is a powerful collection of multivariate analysis techniques, which specifies the relationships between variables through the use of two main sets of equations namely: measurement equation and structural equations. Measurement equation test the accuracy of proposed measurements by assessing relationships between latent

variables and their respective indicators. The structural equation drive the assessment of the hypothesized relationships between the latent variables, which allow testing for the statistical hypotheses for the study. Additionally, SEM considers the modeling of interactions, nonlinearities, correlated independents, measurement error, correlated error terms, and multiple latent independents each measured by multiple indicators.

Indeed, test for interaction effect using SEM surpasses traditional regression models by including multiple independent and dependent variables to test for associated hypotheses about relationships among observed and latent variables. Hair *et al.* (2010) advocate for excellent model fit indices between the competing models when testing for the interaction effects between independent, moderator, and dependent variables.

Thus, Baron and Kenny (1986) set four cases for testing existence of interaction/moderation effect of a moderator variable. These include the following: the moderator and independent variables are categorical variables; the moderator variable is a categorical variable and the independent variable a continuous variable; the moderator variable is a continuous variable and the independent variable is categorical; and both moderator and independent variables are continuous variables. Thus, the existence of relationships between the variables should be established through correlation and regression analyses (Cohen and Cohen, 1983; Aiken and West, 1991). Therefore, in order to proceed with the test for moderation, correlation and regression analyses were performed to establish the relationships and effects of moderator and independent variables on dependent variable.

The use of AMOS (Arbuckle, 2003) was adopted and bootstrapped bias-corrected confidence intervals were requested. Thus, a three-variable path diagram, including error terms for the endogenous moderator and dependent variable and bootstrap estimates of indirect, direct, and total effects through the AMOS output submenu, was requested during the analysis. The results for test of moderation of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in Northern Uganda were generated and discussed in the following section.

Findings/results

Demographic profile of business owners

The results in Table I indicated that most (63 percent) SMMEs were own by male compared to 37 percent female ownership. This means that most SMMEs used in the study were owned by men. This could be explained by cultural beliefs and norms in Northern Uganda where women are particularly engaged in home-based domestic and family responsibilities.

Furthermore, the results also showed that 25 percent of the SMMEs owners were in the 18-25 age bracket, while 34 percent were in the 26-33 age bracket. The results further indicated that 24 percent of the SMMEs owners were in the 34-41 age bracket and 11 percent were in the 42-49 age bracket with only 7 percent above the age of 50+. This means that majority of SMMEs owners who participated in the study were in the 26-33 age bracket. This could be explained by the fact that it is the most active age bracket for business venture since it requires a lot of mobility.

Besides, the results revealed that 5 percent of the SMMEs owners had no schooling, while 40 percent had completed primary level of education and 29 percent had attained ordinary level of education. Further analysis of the results also showed that 5 percent of the SMMEs owners had completed both advanced level and vocational/technical/primary teacher college/school/certificate, while 7 percent had attained diploma level of education. In addition, 6 percent had attained bachelor's degree and only 3 percent had other certification such as ACCA, CPA, and ATC. This means that most (40 percent) of the SMMEs owners who participated in the study had completed primary level of education and could read and write. This could be explained by the assumption that most SMMEs,

	Frequency	%	Cumulative %
<i>Gender of SMMEs owners</i>			
Male	192	63	63
Female	112	37	100
Total	304	100	
<i>Age of SMMEs owners (years)</i>			
18-25	76	25	25
26-33	103	34	59
34-41	73	23	82
42-49	33	11	93
50+	21	7	100
Total	304	100	
<i>Education level of SMMEs owners</i>			
No schooling	15	5	5
Primary level	122	40	46
Ordinary level	88	29	75
Advanced level	15	5	80
Vocational/technical/primary teacher college	15	5	85
Diploma	21	7	91
Degree	18	6	97
Other certification (ACCA, CPA, ATC)	9	3	100
Total	304	100	
<i>Classification of SMMEs</i>			
Agriculture	94	31	31
Agro-processing	25	8	39
Carpentry	15	5	44
Art and crafts	9	3	47
General merchandise/trade	131	43	90
Saloon	3	1	91
Restaurants	27	9	100
Total	304	100	
<i>SMMEs location</i>			
Rural	91	30	30
Peri-urban	146	48	78
Urban	67	22	100
Total	304	100	
<i>SMMEs life span (years)</i>			
0 < 1	100	33	33
2-3	97	32	65
4-8	73	24	89
> 9	34	11	100
Total	304	100	
<i>SMMEs categorization</i>			
Micro	203	67	67
Small	61	20	87
Medium	40	13	100
Total	304	100	

Table I.
Demographic profile
of SMMEs owners

especially in rural areas, are started by school drop-outs since they may not be absorbed in formal employment.

Similarly, the results indicated that most (43 percent) of the SMMEs that were selected for the study were engaged in general merchandise/trade and 31 percent were

involved in agriculture. The results further revealed that 9 percent were engaged in restaurant business, while those engaged in agro-processing, carpentry, art and crafts, and saloon businesses comprised of 8, 5, 3, and 1 percent of the SMMEs surveyed. Thus, this implies that most SMMEs were engaged in agricultural activities.

In addition, the results also showed that 48 percent of the SMMEs were located in peri-urban areas, while 30 percent were located in rural areas and 22 percent in urban areas. This means that most SMMEs used in the study were located in peri-urban areas. This could be justified by the existence of dense population created by establishment of internally displaced persons' camps during the LRA rebel activities.

More so, the results from study also revealed that 33 percent of the SMMEs were in operation for less than 1 year, while 32 percent for 2-3 years and 24 percent for 4-8 years. The results further indicated that 12 percent of the SMMEs were in operation for more than 9 years. This means that most SMMEs used in the study had not celebrated their first birthday. This implies that most businesses seem to die before their fifth years in operations. Besides, this could be as a result of more business incubation as opposed to their sustainability.

Finally, the results indicated that 67 percent of the SMMEs were micro in size, while 20 percent were small in size and 13 percent were medium size enterprises. This means that majority of the SMMEs used in the study were micro enterprises. This could be due to the small amount of capital required to start-up such businesses compared to small and medium size enterprises.

Pearson's correlation analysis

According to Field (2005), correlation is a measure of the linear relationship between two or more variables. Pearson's correlation analysis was used to establish the relationships between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, government support, and SMMEs survival in post-war communities in Northern Uganda. The results are presented in Table II.

Business skills and SMMEs survival

The correlation results in Table II revealed that there is a significant and positive association between business skills and SMMEs survival ($r = 0.603, p \leq 0.01$). This implies that business skills influence SMMEs survival in post-war communities. Indeed, Kuene (2008) contends that entrepreneur's initiative and skill are significant determinants of SMMEs survival and success.

Capital adequacy and SMMEs survival

Besides, the results showed that there is a significant and positive association between capital adequacy and SMMEs survival ($r = 0.416, p \leq 0.01$). This implies that capital adequacy influences SMMEs survival in post-war communities. The availability of adequate capital can underpin the effective implementation of entrepreneurial and financial management plans by SMMEs that can lead to their survival and growth.

	<i>n</i>	Mean	SD	1	2	3	4	5	6	7
Business skills (1)	304	3.54	0.538	1						
Capital adequacy (2)	304	3.55	0.556	0.457**	1					
Access to finance (3)	304	3.61	0.489	0.436*	0.430**	1				
Access to market (4)	304	3.61	0.498	0.418**	0.375**	0.381**	1			
Government support (5)	304	3.79	0.554	0.194**	0.175*	0.253*	0.643**	1		
Ent. education (6)	304	3.66	0.496	0.375**	0.439*	0.297**	0.524**	0.461**	1	
SMMEs survival (7)	304	3.43	0.590	0.603**	0.416**	0.616**	0.566**	0.706**	0.441**	1

Notes: $n = 304$. *,**Correlation is significant at the 0.05 and 0.01 levels (2-tailed)

Table II.
Pearson's correlation
results

Access to finance and SMMEs survival

Furthermore, the results also indicated that there is a significant and positive association between access to finance and SMMEs survival ($r = 0.616, p \leq 0.01$). This means that a change in access to finance is associated with a change in SMMEs survival in post-war communities. According to Beck and Demirguc-Kunt (2006), access to finance by SMMEs is an important factor in experiencing continuous growth. It allows entrepreneurs to innovate, improve efficiency, expand to new markets, and provide millions of jobs.

Access to market and SMMEs survival

More so, the results also showed that access to market and SMMEs survival are significantly and positively related ($r = 0.566, p \leq 0.01$). This implies that a change in access to market is associated with SMMEs survival in post-war communities. This finding is supported by Dzisi and Oforu (2014) who argue that access to market by SMMEs helps them to gain an in-depth understanding of the market, particularly with regard to their competitors and customers thereby, capturing market share that is favorable for their survival.

Entrepreneurial education and SMMEs survival

The results further revealed that entrepreneurial education and SMMEs survival are significantly and positively associated ($r = 0.441, p \leq 0.01$). This implies that a change in the level of entrepreneurial education is associated with SMMEs survival in post-war communities. Indeed, Keizer *et al.* (2005) observe that entrepreneurs with adequate information and knowledge can easily assess risk better than others, which enables them to achieve innovative products for survival and high growth.

Government support and SMMEs survival

The correlation results indicated that there is a significant and positive association between government support and SMMEs survival ($r = 0.706, p \leq 0.01$). This means that a change in government support is related to SMMEs survival and growth in post-war communities. Nguyen *et al.* (2009) suggest that government support to SMMEs is critical for their survival and growth in both developed and developing countries. Thus, the nature and scope of government support has a direct impact on SMMEs survival.

Test for moderation using SEM Bootstrap approach

The study focused on establishing the moderating role of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in Northern Uganda. SEM Bootstrap approach through AMOS was adopted to test for the moderating effect of government support.

Therefore, while constructing the SEM moderated model, two models were generated to show the direct effects of business skills, capital adequacy, access to finance, access to market, entrepreneurial education on SMMEs survival in post-war communities in Northern Uganda; and the moderated effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in Northern Uganda. The first model had the direct effects of business skills, capital adequacy, access to finance, access to market, and entrepreneurial education on SMMEs survival in post-war communities in Northern Uganda. The second model had direct effects of business skills, capital adequacy, access to finance, access to market, and entrepreneurial education on SMMEs survival in post-war communities in Northern Uganda moderated by government support.

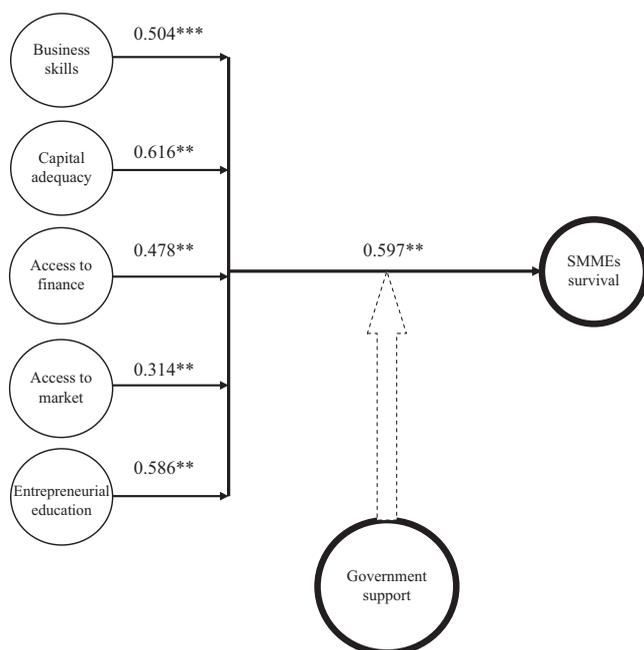
Therefore, as a rule of thumb, Hair *et al.* (2006) recommend that the moderated model should be better than the non-moderated model with better model fit indices. The results of the test for the moderating role of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival in post-war communities in Northern Uganda are indicated in Table III. The results revealed that the moderated model is better than the non-moderated model with better model fit indices as indicated in Table III (Figure 2).

Hypotheses	Path coefficients	SE	t-value	p-value
SMMEs surv →business skills	0.504***	0.096	1.355	***
SMMEs surv →capital adequacy	0.616**	0.187	1.947	0.005
SMMEs surv → access to finance	0.478**	0.130	2.477	0.003
SMMEs surv → access to market	0.314**	0.580	2.783	0.005
SMMEs surv → entrepreneurial education	0.586***	0.378	3.384	***
SMMEs surv →Determin. of SMMEs survival×government support	0.597**	0.581	3.165	***

	Non-moderated Model (1)	Moderated Model (2)
Degrees of freedom (df)	31	60
Probability (P)	0.123	0.267
Goodness of fit index (GFI)	0.830	0.944
Incremental fit index (IFI)	0.717	0.992
Tucker-Lewis index (TLI)	0.798	0.988
Comparative fit index (CFI)	0.765	0.969
Normed fit index (NFI)	0.780	0.996
Root mean square error of approximation (RMSEA)	0.062	0.022

Notes: $n=304$. * $p < 0.005$; ** $p < 0.001$; *** $p < 0.0001$

Table III.
SEM moderated model



Notes: * $p < 0.005$; ** $p < 0.001$; *** $p < 0.0001$

Figure 2.
Path model results

Drawing from the SEM moderated results in Table III, there is a significant and positive interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival ($\beta = 0.597$, $t = 3.165$, $p < 0.0001$). This supports *H6* of the study, which states that government support significantly and positively moderates the relationship between the determinants of SMMEs survival in post-war communities. Government support geared towards creating positive externalities for SMMEs in form of levelled credit markets, security, competition, investment and tax incentives, improving education, training and development, and offering low-cost equitable legal system can create a conducive environment for SMMEs survival and growth (World Bank, 2013).

The SEM results also showed that there is a significant and positive relationship between business skills and SMMEs survival ($\beta = 0.504$, $t = 1.355$, $p < 0.0001$). This result supports *H1* of the study, which states that business skills significantly and positively affect SMMEs survival in post-war communities. Business knowledge and skills are important for profitability and sustainability of SMMEs in keeping their business afloat. This leads to competitiveness and hence, growth among SMMEs. Kuene (2008) states that existence of skillful employees and managers is a significant determinant of SMMEs success.

Besides, the results revealed that capital adequacy and SMMEs survival are significantly and positively related ($\beta = 0.616$, $t = 1.947$, $p < 0.005$), therefore, lending support to *H2* of the study. The availability of adequate capital can underpin the effective implementation of entrepreneurial and financial management plans by SMMEs that can lead to their survival and growth.

Similarly, the results also showed that there is a significant and positive relationship between access to finance and SMMEs survival ($\beta = 0.478$, $t = 2.477$, $p < 0.001$). This is in contention with *H3* of the study. Beck and Demircuc-Kunt (2006) observe that access to finance for SMMEs is an important factor in experiencing continuous survival and growth. Access to finance allows SMMEs to undertake productive investments to expand their businesses and to acquire latest technologies in order to be competitive in the market.

Furthermore, the results also indicated that access to market and SMMEs survival are significantly and positively related ($\beta = 0.314$, $t = 2.783$, $p < 0.005$). This is in agreement with *H4* of the study. Empirical study by Barnes *et al.* (2006) revealed that access to cross-border trade by SMMEs resulted into increase in their profit and market share.

Conclusively, the results showed that there is a significant and positive relationship between entrepreneurial education and SMMEs survival ($\beta = 0.586$, $t = 3.384$, $p < 0.0001$). This confirms *H5* under this study. Entrepreneurial education is thought to increase the intrinsic motivation and energizes behavior that lay the foundation for survival and success of SMMEs, especially in developing countries. Indeed, the more the SMMEs owners and managers receive entrepreneurial education, the greater the possibility of their entrepreneurial success and growth of their businesses.

Discussion of findings/results

The SEM model results indicated that there is a significant and positive relationship between business skills and SMMEs survival. This finding is in line with Solomon (2004) who argues that generic business skills such as preparing financial statements, business plans, and financial literacy attained through training, are important for the survival, growth, and sustainability of SMMEs in developing countries. Besides, Hussain (2000) suggests that possession of skills in business management, marketing, finance, record keeping, human relations, and industrial relations by SMMEs employees and managers positively impacts on their survival. Thus, business skills like customer relations, communication, marketing, negotiation, market analysis and research, financial literacy and numeracy, budgeting and planning, value addition, business ethics, record keeping, and networking skills acquired by

owners of SMMEs in post-war communities after the war in Northern Uganda are critical and contributes greatly to their survival. This finding supports *H1* of the study, which states that business skills significantly and positively affect SMMEs survival in post-war communities.

In addition, the results also revealed that capital adequacy and SMMEs survival are significantly and positively related. This lends support to *H2* of the study. According to Cooper *et al.* (1994), availability of adequate capital enhances the pursuit for resource-intensive growth strategies by SMMEs. This is because slack resources can be tailored to new strategies and practices, which allow SMMEs to pursue new growth opportunities for survival (Penrose, 1959). Indeed, Storey (1994) argues that availability of financial capital influences firm performance, survival, and growth, especially in developing economies. Hence, access to adequate capital from financial institutions and private sector development agencies to allow for recapitalization among SMMEs in post-war communities, may help them to grow their businesses in order to attain self-sufficiency.

Furthermore, the results also showed that there is a significant and positive relationship between access to finance and SMMEs survival. Scholars like Berger and Udell (1998); and Vos *et al.* (2007) observe that access to funding is the lifeblood of any enterprise because it enables it to grow and generate more output and employment. Similarly, OECD (2006) concurs that access to finance by an enterprise facilitates access to resources, output growth, employment generation, profitability, efficiency, exports, productivity and return on assets. Indeed, access to finance by SMMEs in post-war communities is the life blood for their survival because it enables them to generate more assets, returns from investments, and acts as shocks against risk. This finding is in contention with *H3* of the study.

Besides, the results indicated that access to market and SMMEs survival are significantly and positively related. Dzisi and Oforu (2014) contend that access to market by SMMEs helps them to gain an in-depth understanding of the market, particularly in regard to their competitors and customers. Indeed, Chyau (2005) asserts that empowering SMMEs to participate in global business through market connectivity, helping them to create and deliver products and services on a global scale, and providing them with access to new markets lead to their survival and growth. Therefore, access to markets, especially cross-border markets like in South Sudan and Democratic Republic of Congo can boost market availability for SMMEs in post-war communities in Northern Uganda. This will greatly improve their survival because of additional revenue earned from the cross-border markets as compared to the local markets. Thus, this is in agreement with *H4* of the study.

More so, the results showed that there is a significant and positive relationship between entrepreneurial education and SMMEs survival. This is supported by Becker (2002) who points out that economic growth depends on the synergy between new knowledge and human capital, which is the main reason for success among large-scale enterprises, mostly in developed countries. In addition, King and McGrath (2002) also state that entrepreneurs with large stocks of capital that includes education and/or vocational training are better placed to adapt to the constantly changing business environment. Noe (2002) also observes that enterprises that provide entrepreneurial education to its staff and owner managers, which are innovative in nature, are more likely to produce better performance than those who ignore entrepreneurial education. Thus, entrepreneurial education involving acquisition of new business innovations, technologies, knowledge, and skills spillovers from professional and business networks, may be the back bone for survival of SMMEs in post-war communities in Northern Uganda. This confirms *H5* under this study.

Overall, the results indicated that there is a significant and positive interaction effect of government support in the relationship between business skills, capital adequacy,

access to finance, access to market, entrepreneurial education, and SMMEs survival. Okpara (2010); and Shariff and Peou (2008) indicate that government support influences the survival and growth of SMMEs. Consistent with Nguyen *et al.*, (2009), government support to SMMEs is a critical factor for their growth in both developed and developing countries. Thus, the nature and scope of government support has a direct impact on the performance and growth of SMMEs (Borges *et al.*, 2009). Besides, Chacuamba (2011) stipulates that government support through business networks development, development of latent clusters of business activity in rural areas, promotion of social enterprise option to rural communities, ensuring access to high-quality business advice, and provision of marketing support for new and small rural firms can enhance SMMEs survival in developing economies. Similarly, the World Bank (2013) argues that government support aimed at reducing transaction costs can stimulate survival of SMMEs. Additionally, Kraja *et al.* (2014) also state that government support through promoting new businesses, creating incubators for such businesses, doing market research, improving existing infrastructure, fostering private and public partnership, building supportive policies on financing businesses, providing access to markets locally and internationally, fighting against corruption, and creating favorable business climate can result in SMMEs survival and development.

Indeed, creation of a conducive environment by government, which promotes business skills, capital adequacy, access to finance, access to market, and entrepreneurial education can greatly result into survival of SMMEs in post-war communities in developing countries Northern Uganda inclusive. This result is in line with *H6* of the study, which states that government support significantly and positively moderate the relationship between determinants of SMMEs survival in post-war communities.

Conclusion and outlook

The findings revealed that there is a significant and positive interaction effect of government support in the relationship between business skills, capital adequacy, access to finance, access to market, entrepreneurial education, and SMMEs survival. Indeed, the nature and scope of government support has a direct impact on SMMEs performance and survival, especially in developing countries. This is in contention with *H6* of the study.

In addition, the results from the study also indicated that there is a significant and positive relationship between business skills and SMMEs survival. This result supports *H1* of the study, which states that business skills significantly and positively affect SMMEs survival in post-war communities.

Besides, the results revealed that capital adequacy and SMMEs survival are significantly and positively related, hence, lending support to *H2* of the study. Indeed, availability of adequate capital enhances the pursuit for resource-intensive growth strategies by SMMEs. This is because slack resources can be tailored to new strategies and practices, which allow SMMEs to pursue new survival and growth opportunities.

Furthermore, the results also showed that there is a significant and positive relationship between access to finance and SMMEs survival. This is in contention with *H3* of the study. Access to finance is the lifeblood of any enterprise, which enables it to grow and generate more output and employment. Indeed, it facilitates access to other resources, profitability, efficiency, exports, productivity and return on assets for sustainability.

Additionally, the results also indicated that access to market and SMMEs survival are significantly and positively related. This is in agreement with *H4* of the study. SMMEs involved in local and cross-border markets experience open access and integration into the lucrative supply chains of international players, thus, leading to their survival, growth and development.

Finally, the results showed that there is a significant and positive relationship between entrepreneurial education and SMMEs survival. This confirms *H5* under this study. The more the SMMEs owners receive entrepreneurial education, the greater the possibility of their entrepreneurial survival and success of their businesses.

Therefore, governments in developing countries, especially in post-war communities, should provide capacity building through offering specialized business trainings to inculcate business ideas, knowledge, and skills among SMMEs owners on how to select and manage their businesses by linking their businesses to the right skills.

Besides, governments in developing countries, especially in post-war communities, should embark on financial literacy drives to educate business owners the concept of money and how to manage it wisely. This will make them to become more informed financial decision-makers. In addition, it will also offer them opportunities to learn basic business skills like record keeping, basic numeracy skills, investment decisions, business planning, earning, spending, budgeting, savings, and loan management.

More so, governments in developing countries, especially in post-war communities, should advocate and lobby for full financial inclusion of businesses in order to ease access to basic financial services, such as trade credit/loans to provide start-up capital and recapitalization funds to SMMEs.

Furthermore, governments in developing countries, especially in post-war communities, should provide local trade protection in order to protect SMMEs from unnecessary competition so as to spur their survival, growth, and development. Besides, they should support access to regional and international markets by SMMEs through promoting cross-border trade. Similarly, the government should offer investment incentives and tax waiver to local SMMEs. More so, they should ensure revising the double taxation regime levied on local SMMEs.

In addition, governments in developing countries, especially in post-war communities, should provide business advisory services on business incubation, management, and growth strategies through business clinics in order to reduce the high rate of mortality among SMMEs in order to achieve post-war recovery programs.

Conclusively, governments in developing countries, especially in post-war communities, should revive the specialized cooperative societies among the business communities in order to enable them to have collective bargaining power and access to scarce information on markets, raw material, new technology and innovations, skills, and credit/loans.

Shortcoming and future research

The study was cross-sectional and data were collected at a specific point in time, thus, longitudinal study design was ignored. Besides, the sample for the study was selected from only Gulu District, therefore, leaving out other Districts located in the post-war region of Northern Uganda. Similar future study may be carried out in other Districts located in the same region. Furthermore, the study used a semi-structured questionnaire to collect quantitative data. Future studies could focus on qualitative data by use of interview guides and focused-group discussion.

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