

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v8-i1/3779>

DOI: 10.6007/IJARBSS/v8-i1/3779

Received: 23 Dec 2017, **Revised:** 19 Jan 2018, **Accepted:** 23 Jan 2018

Published Online: 27 Jan 2018

In-Text Citation: (Kamanzi, Namusonge, & Eugene, 2018)

To Cite this Article: Kamanzi, J., Namusonge, G. S., & Eugene, N. (2018). Influence of Innovation on Growth of Women Micro Businesses in Bugesera District. *International Journal of Academic Research in Business and Social Sciences*, 8(1), 24–42.

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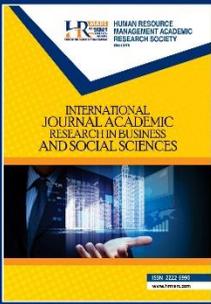
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Vol. 8, No.1, January 2018, Pg. 24 - 42

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Influence of Innovation on Growth of Women Micro Businesses in Bugesera District

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Abstract

Innovation has been defined as Innovation has been studied at various levels: macro, micro (or company) and project level (Goffin and Pfeiffer, 1999). According to Gopalakrishnan and Damanpour (1997) there is no generally accepted definition of innovation. They declare that researchers within each field conceptualize innovation differently, and have differing views of the impact they can have on a firm's productivity, growth, survival and performance. However, they emphasize that the criteria used to conceptualize innovation in various disciplines are not entirely independent of each other. Urabe (1988) states that innovation is the generation of a new idea and its implementation into a new product, process, or service. Afuah (2003) says that innovation is the employment of newly acquired knowledge which then provides a new product or service that customers want; this can be simplified to invention and commercialization. This study sought to establish the influence of innovation on growth of women micro business in Bugesera District. Specifically, the study sought to: assess the influence of innovation on growth of women micro business. The study adopted a descriptive survey design. The target population of this study comprised of all registered women micro businesses by the district authorities as at 01st January 2017 that have been in operation with a focus on the women micro businesses. Primary data was collected by structured questionnaires. Secondary data was collected from district documents and relevant publications in referred journals. The collected data was edited, coded and entered into SPSS software for analysis. Data was analyzed using descriptive and inferential statistics. In particular, Regression Analysis was used to investigate the relationships

between hypothesized variables. Analysis of Variance (ANOVA) was also used to investigate whether independent variables had combined effect on the dependent variable.

The findings were presented using figures and tables. The study found out that the study showed that innovation was key to making better innovative decisions which were assessed by managers' creativity strategy and their ability to new ideas which can be acquired through training. The study however established that, innovation had significant and positive influence on women micro businesses in Bugesera District. This study is envisaged to aid in the development of policy documents to grow women micro business in Rwanda.

Keywords: Innovation, Growth, Women Micro Business, Creativity, Idea Management, Risk Management, Bugesera District

Introduction

Women micro business are individuals who discover market needs and launch new business to meet those needs. They are risk aggressors who provide an impetus for change, innovation, and progress in economic aspect. Women micro business are profit oriented in both formal and informal sectors, classified into farm and non-farm categories employing 1-150 workers (GoR, 2005). These women businesses cut across all sectors of Rwanda economy and provide one of the most prolific sources of employment creation, income generation and poverty reduction. Today's business world has been deeply influenced by women micro businesses and rapidly changing global production, work and business methods and trade patterns in economy. Women micro business have been credited with enormous contribution to the growth of the economies of the world. In the same vein, innovation and creativity particularly the production and service sector have attracted attention to world schoolers and researchers. The American economy, the biggest economy in the world, depends largely on the success of SMEs innovation, the rapid transformations of the high performing Asian countries such as India, Malaysia, Indonesia, Taiwan and Hong Kong have also been hailed as proof that women business are major catalysts to economic development. Their importance to any economy centers on their ability to stimulate resourceful entrepreneurship, to provide employment to a greater number of people, to mobilize and utilize domestic savings and raw materials, to provide intermediate raw-materials or semi-processed products to large scale enterprises and to curtail rural-urban migration. The innovation provides the foundation on which any country's economic growth and stability rests. As the world economy continues to move toward increased women participation in the affairs of the economy as a result of advances in information sharing, and the increasing reduction in trade barriers, some of the greatest opportunities for women business will develop from their ability to participate in the regional and international markets (Mutula & Brakel, 2006).

The Rwanda Vision 2050 envisages Business as one of the key drivers of economic development as we strive to achieve the aspirations of the county's development plan. The SME sector is important in the social economic development of Rwanda and is perceived as an engine for growth (GoR, 2009). However, women micro business seem ill equipped to confront the challenges of globalization, financial challenges, skills whose epitome is innovation, a major determinant of competitiveness. Women entrepreneurs are relatively young, and many turned to business in the years following the genocide. In fact, of the small enterprises operating in

Rwanda, almost 70 percent were established within the last 10 years. In contrast to their East African neighbors, many businesswomen are sole owners or have partners in business that do not include their husbands or families. In fact, interviews with women entrepreneurs revealed a marked absence of men in their businesses. Currently there are 8,629 women business operating in Bugesera District as at 01st January 2017. Traders and retails accounted for 5,470 Transport services accounted for 317, Agro- business and fisheries accounted for 1,532, Tourism hotels and restaurants 38, Financial services 37, garage and technical services 1,157, small factories 78. Nevertheless, Rwanda has yet to overcome the persistent weaknesses of its women business and lack of skilled personnel.

Statement of the Problem

According to the World Bank (2010) countries with over 90% growth rate of GDP achieved the rate of high utilization of the human, structural, customer, technological capital and entrepreneurial skills (Intellectual capital) or ability to innovate as defined by Subramanian et. al. (2005), Wu et al. (2008), Zenler et al. (2008) which has a significant effect on the enterprise growth and gives competitive advantage. The principal component of entrepreneurship is innovation which help in creating entrepreneurial business. The remarkable growth of business industry sector over the last two decades has transformed many economies. The drivers of economic growth have become more innovation- intensive and less dependent on natural resources. In Rwanda, the government has reiterated the development of women micro business in the country given its strategic importance. These commitments manifest in the various policies and strategies that the government has put in place over time, aimed at the growth and expansion of women business in the country. These are contained in the various policy documents and budget speeches, as well as the Vision 2050 (GoR, 2015). Despite the policy and strategy pronouncements, there are various constraints that are currently facing the growth and expansion of women micro business in the country. Duncombe and Heeks (1999) notes that these range from financial, human resources, to infrastructural development among others. Therefore, this study sought to analyze the influence of innovation on growth of women micro business in Bugesera District. The status of women micro business suggests that there is a need to carry out extensive survey on the strategic level and address the challenges. This study sought to establish the influence of innovation on growth of women micro business in Bugesera district.

Objectives of study

1. To assess the influence of innovation on growth of women micro business in Bugesera District
2. To find out the relationship between innovation and growth of women micro-business in Bugesera district

Research Hypothesis

H₀: There is no influence of innovation on growth of women micro businesses in Bugesera District.

Justification of study

This study provided information for all women micro businesses. This helped in designing and implementing effective and efficient services activities directed towards women micro business so that the benefits of micro business can be realized. This current research added to the current growing literature on women entrepreneurship, women and business growth and entrepreneurship innovations. The research findings had impact on policies regarding micro business support for female entrepreneurs, enterprise education in general and specifically enterprise innovations for female entrepreneurs and business owners. This research also had impact on the way academicians strategically viewed, designed and delivered entrepreneurship programmes to female entrepreneurs and business owners for better performance, having looked at the challenges that face women micro businesses. The study was useful to the various financial intermediaries like the banking institutions in developing new financial products that is relevant to rural micro women enterprises and low-income households. With the increase in banks this addresses the relevant bank products which suit women owned enterprises. The study was also relevant to the insurance sector as it addressed on the issues of net worth patterns and products that were relevant for women micro business.

Scope of Study

The study focused on the influence of innovation on growth of women micro business in Bugesera Distric. In order to measure innovation, the study focused on indicators of relevance of innovation which are creativity, idea management, and risk management. The study was done in the context of women owned businesses established earlier than 1st January 2017 and located in Bugesera District. This was done between the months of November 2017 and 05th December 2017.

Limitations of Study

First, the measurement scales of several constructs within innovation variables was reduced to increase the level of model fit and this may have limited the accuracy of the measures of the construct. Finally, data of this study were collected from women owned micro business in Bugesera district, yet business environments might differ across other districts of the country. Hence, the ability to generalize the findings of this study depends on the limitations of comparable environmental backgrounds of Bugesera district. A replication of this study within different districts of the country will help to shed light on the question if the research environments of innovation and women micro business differ across Rwanda.

Literature Review

Diffusion of Innovation (DOI) Theory, developed by Rogers (2010) is one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behavior, or product. Adoption means that a person does something differently than what they had previously (purchase or use a new product, acquire and perform a new behavior). The key to adoption is that the person must perceive the idea, behavior, or product as new or innovative. It is through this that diffusion is possible.

Conceptual framework

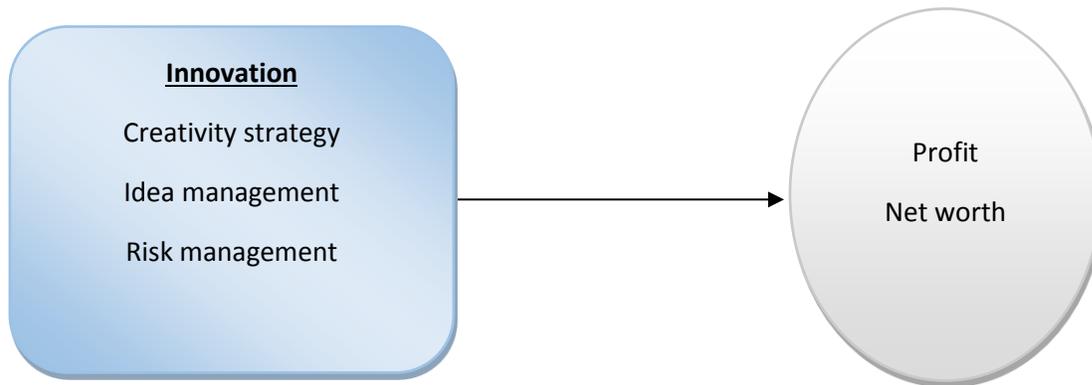


Figure 2.1: Conceptual framework

According to Amabile (1988) adoption of a new idea, behavior, or product (innovation) does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to adopt the innovation than others. Researchers have found that people who adopt an innovation early have different characteristics than people who adopt an innovation later. When promoting an innovation to a target population, it is important to understand the characteristics of the target population that will help or hinder adoption of the innovation. There are five established adopter categories, and while the majority of the general population tends to fall in the middle categories, it is still necessary to understand the characteristics of the target population. When promoting an innovation, there are different strategies used to appeal to the different adopter categories, (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004).

Innovators, these are people who want to be the first to try the innovation. They are venturesome and interested in new ideas. These people are very willing to take risks, and are often the first to develop new ideas. Very little, if anything, needs to be done to appeal to this population.

Early Adopters, these are people who represent opinion leaders. They enjoy leadership roles, and embrace change opportunities. They are already aware of the need to change and so are very comfortable adopting new ideas. Strategies to appeal to this population include how-to manuals and information sheets on implementation. They do not need information to convince them to change.

Early Majority, these people are rarely leaders, but they do adopt new ideas before the average person. That said, they typically need to see evidence that the innovation works before they are willing to adopt it. Strategies to appeal to this population include success stories and evidence of the innovation's effectiveness.

Late Majority, these people are skeptical of change, and will only adopt an innovation after it has been tried by the majority. Strategies to appeal to this population include information on how many other people have tried the innovation and have adopted it successfully.

Laggards, these people are bound by tradition and very conservative. They are very skeptical of change and are the hardest group to bring on board. Strategies to appeal to this population include statistics, fear appeals, and pressure from people in the other adopter groups.

The Diffusion of Innovation (DOI) model

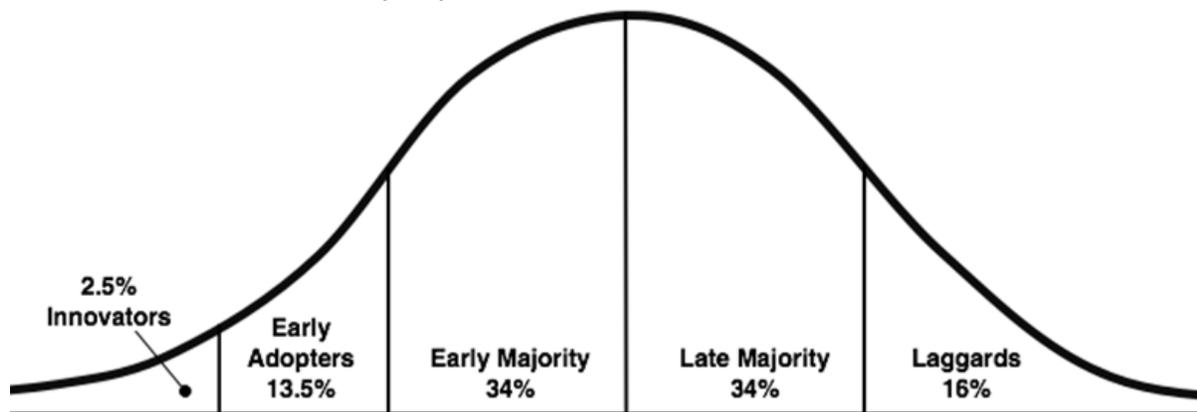


Figure 2.2 The five-established adopter model by Greenhalgh, T et al (2004)

The stages by which a person adopts an innovation, and whereby diffusion is accomplished, include awareness of the need for an innovation, decision to adopt (or reject) the innovation, initial use of the innovation to test it, and continued use of the innovation. There are five main factors that influence adoption of an innovation, and each of these factors is at play to a different extent in the five adopter categories.

Relative Advantage - The degree to which an innovation is seen as better than the idea, program, or product it replaces. Compatibility, how consistent the innovation is with the values, experiences, and needs of the potential adopters. Complexity, how difficult the innovation is to understand and/or use. Triability, the extent to which the innovation can be tested or experimented with before a commitment to adopt is made. Observability, the extent to which the innovation provides tangible results.

This theory has been used successfully in many fields including entrepreneurship, Business administration, communication, agriculture, criminal justice, social work, and marketing. In entrepreneurship and business, Diffusion of Innovation Theory is used to accelerate the adoption of important entrepreneurship programs that typically aim to change the behavior of a social system. For example, an intervention to address innovation challenge is developed, and the intervention is promoted to people in a social system with the goal of adoption (based on Diffusion of Innovation Theory). The most successful adoption of entrepreneurship program results from understanding the target population and the factors influencing their rate of adoption.

Motivation can be conceived of as a cycle in which thoughts influence behaviors and innovations, behaviors drive performance, performance affects innovations. Each stage of the cycle is composed of many dimensions including attitudes, beliefs, intentions, effort, and withdrawal which can all affect the motivation that an individual experience. Most psychological theories hold that motivation exists purely within the individual, but socio-cultural theories express motivation as an outcome of participation in actions and activities within the broad context of entrepreneurship.

Methodology

A study was carried out to identify the influence of innovation on growth of women micro business in Bugesera District. The target population consisted of the women business community

in Bugesera District, totaling 8,629 business. The sample size was 324 using Stratified sampling was used to select the sample size of 324 from the different business/activity sectors from the sampling frame representing 8,629 registered businesses in Bugesera District. Simple random sampling was then used to select the sample size. The sample business units were selected randomly by the researcher on the basis that the sample unit selected out of the sample size was typical or representative of the whole (Kothari & Garg, 2014).

Table 3.1: Sample Size

Business (Industry) Activity	Total Number	Population Percentage	Sample Size
Trading, Shop & hardware Retail	5,140	59.6%	237
Transport, Services	317	3.7%	10
Agribusiness, Fisheries	1,532	17.7%	38
Tourism, Hotel and Restaurants	38	0.4%	4
Financial, Services	367	4.2%	12
Garage, Service	1,157	13.4%	16
Cottage, Industries	78	1.0%	17
Total	8,629	100%	324

A census of all the top, middle and lower managers was adopted. Primary and secondary data was collected. Structured questionnaires were used to collect primary data which were administered by face-to-face and telephone interviews. Secondary data came from district records and referred journals. Data collected was analyzed by descriptive and inferential statistics. Descriptive statistics was used to summarize the survey data and provide immediate summary statistics for the various objectives. These included measures of central tendency and measures of relationships. In particular, Regression Analysis was used to investigate the relationship(s) that had been hypothesized amongst the variables of study. Analysis of variance (ANOVA) was also used to investigate whether independent variables had combined effect on the dependent variable. Content analysis was also conducted on the data that are of qualitative nature. Results were presented on frequency tables.

Findings

Innovation Results

The first objective of the study was to determine the influence of innovation on growth of women micro business in Bugesera District. This objective was operationalized by three measures namely; creativity strategy, New ideal management and Risk management and ten constructs were tested for factor analysis.

Sample Adequacy Results of Innovation

The KMO and Bartlett's tests were used to test the correlation between Innovation variables. The KMO measure of sample adequacy results is 0.846 as shown in Table 4.16.

Table 4.1: KMO and Bartlett's Test for Innovation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.835
	Approx. Chi-Square	3290.228
Bartlett's Test of Sphericity	Df	21
	Sig.	.000

This value indicates good partial correlation exhibited in the data for this study. Ali *et al.* (2016), showed that the KMO index ranges from 0 to 1, with 0.5 and above considered suitable for factor analysis. For the Bartlett's Test of Sphericity, p-value should be less than 0.05 for factor analysis to be suitable. The Bartlett's Test of Sphericity was used at significant level of $p < 0.05$ to confirm sufficient correlation among the innovation variables. The Bartlett's Test of Sphericity result is 0.000 which shows high significance. Rusuli *et al.* (2013), explained that Measure of Sampling Adequacy should exceed 0.5 and for Bartlett's test of Sphericity the p-value should be less than 0.05.

Innovation Data Normality Test Results

Normality was used to test for significance and construction of confidence interval estimates of the parameters. The assumption is that the variables are normally distributed. In their study, Ali *et al.* (2016), showed that the assumptions and application of statistical tools as well as suitability of the tests are important aspects for statistical analysis. To check for normality, the study adopted the Skewness and Kurtosis test and Auto correlation test.

a) Skewness and Kurtosis Test Results

Measures of skewness is based on mean and median while kurtosis measures the peaked-ness of the curve of the frequency distribution (Kothari & Garg, 2014). The results presented in Table 4.17 show that a skewness coefficient of -0.05 and kurtosis coefficient of -0.47. Based on these results, it was concluded that data was normally distributed since their statistic values were between -1 and +1.

Table 4.2: Skewness and Kurtosis

Variable	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Std. Error	
Innovation	317	-.050	.139	-.470	.275

b) Durbin-Watson Test Results

A high degree of correlation among residuals of the regressions' data sets may produce inefficient results. As such, the presence of serial correlation among the OLS regressions is checked using Durbin and Watson's test statistic (Yupitun, 2008).

Table 4.3: Durbin-Watson (Autocorrelation) Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.597 ^a	.356	.352	.33524	1.946

a. Predictors: (Constant), Creativity strategy, Idea management

b. Dependent Variable: Profit

Durbin-Watson statistic ranges in value from 0 to 4 with an ideal value of 2 indicating that errors are not correlated, although values from 1.75 to 2.25 may be considered acceptable. Some authors consider Durbin-Watson value between 1.5 and 2.5 as acceptable level indicating no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 1.946 indicates that the model did not suffer from autocorrelation.

Factor Analysis Results of Innovation

The study sought to determine the influence of innovation on the women micro business in Bugesra District. Innovation was assessed by three measures namely; creativity strategy, new Idea management, and risk management. Ten constructs were tested for factor analysis. Through factor analysis, two factors were identified which had the biggest influence on innovation with cumulative variance of 93.134%. Factor one was the highest with 74.116% while factor two had 19.112% of total variance. These two factors had their Eigen values greater than 1 and had the greatest influence on innovation and explain about 70.836% of variance as shown in Table 4.19.

Table 4.4: Innovation Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.447	74.112	74.116	2.824	47.074	47.074
2	1.147	19.112	93.224	2.769	46.150	93.134
3	.190	3.167	96.392			
4	.150	2.504	98.896			
5	.048	.799	99.695			
6	.018	.305	100.000			

Extraction Method: Principal Component Analysis.

Innovation Rotated Component Matrix Results

Table 4.4 depicts the rotated component factor loadings for determinants of innovation measures. Component 1 was creativity strategy which had three constructs and Component 2 was Idea management had three constructs.

Table 4.5: Innovation Rotated Component Matrix

Opinion Statement	Component CSIM
1. Innovative initiative in the business are supported and developed	.913
2. Creativity and persuasiveness are supported in the business	.910
3. Innovation lead to growth of business	.916
4. Business motivate members for their innovation and persuasiveness	.900
5. Risk management controls are in place to mitigate on risk	.938
6. At every stage of innovation business involves all the workers	.916
7. Innovation influences entrepreneurial dimensions in women micro business	.930
8. New idea management is taken very important in the business	.932

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 3 iterations.

KEY: CS = Creativity Strategy, IM = Idea management

All the variables of innovation have a factor loading of higher than 0.4. Therefore, the component values indicate that they are highly interrelated with each other.

Descriptive Results of Innovation

Innovation was assessed by two measures namely Creativity strategy and new idea management. Descriptive data shown on Table 4.21 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.6: Innovation Descriptive Results

Variable	Mean	Std. Deviation	Cronbach's Alpha
Creativity strategy	4.2166	.49043	.966
Idea management	4.4649	.60047	.962

KEY: Scale 1= Strongly Disagree and 5 = Strongly Agree, Overall mean = 4.3413, Overall Cronbach's Alpha = 0.941

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al.*, 2016). The findings indicated that creativity strategy had a coefficient of 0.966 while new idea management had a coefficient of 0.962. Innovation measures (creativity strategy and idea management) depicted Cronbach's alpha of 0.941 which is above the suggested value of 0.7 hence the study was reliable. It was established that basic idea management acquired from higher learning institutions provides new opportunities in women micro business and that women business had the ability to understand entrepreneurial dimensions, enabling them to make sound decisions as indicated by mean score of 4.22. It was also established that women business that had formal education were called upon for advice to support decisions to be made by the business. These findings were consistent with study by Awais *et al.* (2016) and Njoroge and Ondigo (2013) where they assert that Innovation is the ability to use knowledge and skills to manage financial resources effectively.

It was observed that women micro business members acquired their formal business education through formal trainings at higher learning institutions and as a result of accessing such vital knowledge, they are able to better understand creativity matters and to set realistic goals for the women businesses, as indicated by mean score of 4.47. It was also established that creativity strategy enabled the managers to carry out the routine operational functions. This is supported by Bunyasi *et al.* (2014) where they showed that access to business information has a positive influence on the growth of businesses.

Innovation Correlations Results

Correlation analysis was used to establish the strength and nature of the relationship between innovation measures and women micro business in Bugesera District.

The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed). The output indicates a strong positive relationship between innovation measures (creativity strategies and Idea management), entrepreneurial competency and women micro business (in profit and change in net-worth), $p = 0.000$. The $p\text{-value} < 0.01$, significant at 0.01 level as the correlation matrix indicates.

There is a strong relationship between creativity strategies and Idea management and profit on women businesses (creativity strategy, $\rho = 0.588$ and Idea management, $\rho = 0.441$). A strong relationship also exists between creativity strategy and Idea management and change in net worth of women micro businesses (creativity strategy, $\rho = 0.446$ and Idea management, $\rho = 0.667$).

Therefore, innovation measures (creativity strategy and Idea management) are very important factors in the women micro business (in profit and change in net worth) of micro business. This is supported by Bunyasi *et al.* (2014) where they showed that access to business information has a positive influence on the growth of businesses.

Innovation Goodness-of-fit Model Results

The results on Table 4.7 showed that innovation measures (creativity strategy and idea management) had explanatory power on the profit of micro businesses as it accounted for 35.4% of its variability ($R\text{ Square} = 0.354$) on Model 1, hence the model is a good fit for the data. This

implies that there is a moderate positive relationship between innovation measures (creativity strategies and Idea management) and profit of women micro businesses.

Table 4.7: Innovation Model Summary on profit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597 ^a	.354	.352	.33518

a. Predictors: (Constant), Creativity strategy, Idea management
 b. Dependent Variable: Profit

Table 4.8: Innovation Model Summary on Net-worth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.669 ^a	.437	.444	.35315

a. Predictors: (Constant), Creativity strategy, idea management
 b. Dependent Variable: Net-worth

The results on Table 4.8 showed that innovation measures (creativity strategy and idea management) had explanatory power on change in net-worth of women micro businesses as it accounted for 43.7% of its variability (R Square = 0.437) on Model 1, hence the model is a good fit for the data. This implies that there is a moderate positive relationship between innovation measures (creativity strategy and idea management) and change in net-worth of micro businesses.

Innovation ANOVA Results

Table 4.9 presents the analysis of variance of the study on innovation measures (creativity Strategy and Idea management) and profit of micro business. The results reveal that a significant relationship exists between creativity Strategy, ideal management and profit on women micro business (F = 84.546, p = 0.000) as indicated in Model 1.

Table 4.9: Innovation ANOVA– Profit Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.010	2	9.505	84.546	.000 ^b
	Residual	34.400	306	.112		
	Total	53.410	308			

a. Dependent Variable: Profit

b. Predictors: (Constant), Creativity strategy, idea management

If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

Table 4.10: Innovation ANOVA – Net worth

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	30.945	2	15.472	124.059	.000 ^b
	Residual	38.164	306	.125		
	Total	69.108	308			

a. Dependent Variable: net-worth

b. Predictors: (Constant), Creativity Strategy, idea management

Table 4.10 presents the analysis of variance of the study on innovation measures (creativity Strategy and Idea management) and change in net-worth of women miro businesses. The results reveal that a significant relationship exists between creativity Strategy and Idea management and change in net-worth of women micro businesses (F = 124.059, p = 0.000) as indicated in Model1. From the significance value, the measures of financial literacy (financial-economic knowledge and access to financial information) are indeed different from each other and they affect the change in net-worth of women businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

Regression Results of Innovation and profit

To establish the influence of innovation measures, that is, creativity strategy and idea management, on the micro business (profit) of women micro businesses in Bugesera District, the following null hypothesis was tested:

H₀₁: There is no influence of innovation for entrepreneurial dimensions in women micro businesses.

Regression analysis was conducted to empirically determine whether innovation measures (creativity and new idea management) had significant influence on the profit of women micro business in Bugesera District.

Table 4.11: Regression Coefficients of innovation and profit

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.992	.173		11.520	.000
Creativity					
1 strategy (X ₁)	.439	.050	.516	8.760	.000
New idea					
Management (X ₂)	.083	.041	.119	2.000	.044

a. Dependent Variable: Profit

Table 4.11 displays the regression coefficients results of the innovation measures (that is, creativity strategy and idea management). Creativity strategy (supported by $\beta=0.516$, p-value = 0.000) and idea management (supported by $\beta=0.119$, p-value = 0.000) are statistically significant in explaining profit of micro businesses in Bugesera District.

The influence of innovation measures (creativity strategy and idea management) is therefore significant indicating that the greater the levels of innovation by women micro business, the greater the profit generated from their businesses. Thus, higher levels of innovation among women business managers are associated with increased growth of women businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized as shown by equation 4.3.

$$Y = 1.992 + 0.439X_1 + 0.083X_2 \dots\dots\dots \text{Equation 4.3}$$

Where,

Y – Net profit, X₁ – creativity strategy, and X₂ – Idea management.

It was concluded that there is statistically significant relationship between innovation measures (creativity strategy and idea management) and profit of women micro business in Bugesera district. Thus, higher levels of innovation among women micro businesses that is associated with increased women businesses in Bugesera district.

Regression Results of Innovation and net worth

To establish the influence of innovation measures (creativity strategy and idea management), on the measures of (net worth) of women micro business in Bugesera District, the following null hypothesis was tested:

H₀₁: There is no influence of innovation on the entrepreneurial dimensions on women micro business (net worth) in Bugesera district.

Regression analysis was conducted to empirically determine whether innovation measures (creativity strategy and idea management) had significant influence on the net worth on women micro business in Bugesera District.

Table 4.7: Regression Coefficients of innovation and Change in Net-worth

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.019	.182		11.088	.000
Creativity	.049	.052	.050	.923	.046
1 strategy (X ₁)					
Idea	.503	.043	.637	11.674	.000
Management (X ₂)					

a. Dependent Variable: Change in Net-worth

Table 4.12 displays the regression coefficients results of the innovation measures (that is, creativity strategy and idea management). Creativity strategy (supported by β=0.050, p-value = 0.046) and idea management (supported by β=0.637, p-value = 0.000) are statistically significant in explaining change in net-worth of micro businesses in Bugesera District.

The influence of innovation measures (creativity strategy and idea management) is therefore significant indicating that the greater the levels of innovation by micro business the greater the change in net-worth generated from their businesses. Thus, higher levels of innovation among women micro businesses.

Therefore, that the null hypothesis is rejected since β ≠ 0 and p-value<0.05. The regression model is summarized by equation 4.5.

$$Y = 2.019 + 0.049X_1 + 0.503X_2 \dots\dots\dots \text{Equation 4.5}$$

Where,

Y – Change in net-worth, X₁ – creativity strategy and X₂ – idea management.

It was concluded that there is statistically significant relationship between innovation measures (creativity strategy and idea management) and change in net-worth of women micro businesses in Bugesera. Thus, higher levels of innovation practices among women micro businesses which increased growth of women micro businesses in Bugesera.

Discussions

It was established that basic idea management acquired from higher learning institutions provides new opportunities in women micro business and that women business had the ability to understand entrepreneurial dimensions, enabling them to make sound decisions as indicated

by mean score of 4.22. It was also established that women business that had formal education were called upon for advice to support decisions to be made by the business. These findings were consistent with study by Awais *et al.* (2016) and Njoroge and Ondigo (2013) where they assert that Innovation is the ability to use knowledge and skills to manage financial resources effectively.

The study established influence of innovation on growth of women micro business in Bugesera District. This was done based on how entrepreneurial innovations influence intellectual capital in dimensions of human, structural, customer, and technological capital alongside entrepreneurial skills determine the ability to introduce new products, enter new markets, get patents, and trademarks among other forms of innovation in micro women businesses. sufficient information to policy makers in regard to economic stimulant engines in creating more employment. The determinants of innovation performance from intellectual capital perspective were established by critically examining the six objectives in this study which included: establishing how human, structural, customer, technological capital and entrepreneurial skills determine innovation performance in youth enterprises in Kenya having loan processing procedures and requirements as an intervening variable.

It was observed that women micro business members acquired their formal business education through formal trainings at higher learning institutions and as a result of accessing such vital knowledge, they are able to better understand creativity matters and to set realistic goals for the women businesses, as indicated by mean score of 4.47. It was also established that creativity strategy enabled the managers to carry out the routine operational functions. This is supported by Bunyasi *et al.* (2014) where they showed that access to business information has a positive influence on the growth of businesses.

Conclusions

The study concluded that innovation measures creativity strategy and ideal management had significant and positive influence on women micro businesses (in profit and net worth) of women businesses in Bugesera District. The regression results reveal statistically significant positive linear relationship between creativity strategy and idea management and profit and net worth of women micro businesses in Bugesera district. This was attributed by members' prior and existing knowledge on entrepreneurial skills, their ability to undertake innovative ideas and interpret them, and continuously operationalize them to make better innovative decision. It can therefore be concluded that innovation greatly influences the women micro businesses in Bugesera District. Secondly, this study has enhanced the understanding of how innovation can contribute to women dynamic capabilities through introducing and examining the risk assessment, idea management, its impact on the market. Finally, this study provides an indication of the extent to which business are self-confident to exploit the value generation potential of women and, in particular, the adaptive capability of their innovation. business community can use the experimental results of this study to benchmark the status of their own business particularly top managers.

Recommendation

It was concluded that innovation measures (creativity strategy and ideal management) greatly influenced the women micro business (in terms of profit and net-worth) on women micro

businesses in Bugesra District. These findings on women businesses extended the frontiers of knowledge by generating valuable insights for both academic and enterprise action. Therefore, the results of this study are of interest to owners and managers of women businesses. The study showed that innovation was key to making better innovative decisions which were assessed by managers' creativity strategy and their ability to new ideas which can be acquired through training. Therefore, it can be recommended that managers should be able to enhance innovative practices through embracing creativity that is relevant for them to make informed innovative decisions relating to their businesses.

Acknowledgement

I am very thankful to God for enabling me to carry out this research study successfully. I am grateful to my supervisors, Prof. G.S. Namusonge and Prof. Dr Ndadaga Eugene, who have played a major role in guiding me during this study, encouraged me and offering constructive criticism. I am deeply indebted to women micro businesses of Bugesera District, who participated in the study. To the respondents, I am truly grateful, for without your participation, this research study would not have been possible. My special thanks go to my wife and best friend Mrs. Akariza Anneh for encouraging me and her love, understanding, support and concern during this study period. I sincerely appreciate my entire family, friends, colleagues and acquaintances for their continued emotional support and encouragement.

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