

Spouse Support, Innovative Behaviour and Entrepreneurial Effectiveness of Women-Owned Agricultural Small and Medium Enterprises (SMEs) in Uganda

Marion Nyanzi*, Proscovia Katumba, Anthony Tibaingana

Department of Marketing and Management, Makerere University, Uganda

Keywords:
entrepreneurial effectiveness, innovative behaviour, spouse support, Uganda, Women-owned Agricultural SMEs

The purpose of this study is to establish whether innovative behaviour mediates the relationship between spouse support and entrepreneurial effectiveness of Women-owned agricultural Small and Medium Enterprises in Uganda. This is a cross-sectional and correlational study. A self-administered questionnaire was utilised to collect information from women-owned agricultural SMEs in Uganda's central region. In order to determine the mediating role of innovative behaviour, the Statistical Package for the Social Sciences (SPSS.25) and Medgraph - Excel Version were used to conduct correlation, hierarchical regression and mediation analyses on the data. Study findings revealed that spouse support and innovative behaviour positively and significantly explicate the entrepreneurial effectiveness of Women-owned agricultural SMEs. In addition, spouse support is positively and significantly associated with innovative behaviour and finally, innovative behaviour partially mediates the association between spouse support and entrepreneurial effectiveness. The study established that innovative behaviour partially mediates spouse support and entrepreneurial effectiveness of women-owned agricultural SMEs, unlike extant studies that interrogated the direct relationship between the study variables in predicting entrepreneurial effectiveness.

1. Introduction

Entrepreneurial effectiveness of women-owned small and medium enterprises (SMEs) is acknowledged as an important strategy to enhance the social and economic transformation of economies across the globe (Hagabirema and Kungu, 2020). According to Wach *et al.* (2017), entrepreneurial effectiveness is a multi-dimensional construct that looks at the ability of the entrepreneur to create, develop, and successfully achieve valued outcomes, goals, and objectives of a venture. As such, the attainment of entrepreneurial effectiveness by women-owned SMEs enables them to support their spouses in fulfilling family-based responsibilities, including feeding and educating children (Ummiroh, Schwab and Dhewanto, 2022). At the national level, women become empowered to create employment opportunities, wealth, and innovation that facilitate inclusion and diversity for the sustainable growth of developing economies (Awotoye and Stevens, 2023).

* Corresponding author E-mail address: nyanzimarion20@gmail.com

Cite this article as:

Nyanzi, M., Katumba, P., & Tibaingana, A. (2024). Spouse Support, Innovative Behaviour and Entrepreneurial Effectiveness of Women-Owned Agricultural Small and Medium Enterprises (SMEs) in Uganda. *International Journal of Applied Research in Management and Economics*, 7(1): 15-30. <https://doi.org/10.33422/ijarme.v7i1.1211>



The relevance of entrepreneurial effectiveness of women's owned businesses has encouraged most developing nations, including Uganda, to undertake actions that are aimed at unlocking their potential as a strategic pathway for national development. To begin with, there is the Uganda Women Entrepreneurship Programme (UWEP), launched by the Ministry of Gender, Labour, and Social Development (MGLSD) to offer grants to female entrepreneurs with the aim of improving women's access to capital for launching and growing enterprises (MGLSD, 2019). In addition, Uganda Development Corporation (UDC) assists women entrepreneurs in founding and growing their enterprises by providing funding, technical support, business development, and advisory services. It is also evident that the Uganda Industrial Research Institute (UIRI) provides technical assistance, research and development, training, and testing to assist entrepreneurs in improving the quality and competitiveness of their products.

Regarding financing, Ugx 424 billion (USD 112,386,839.20) was provided by the government for skilling women in 2018 (Skills Development Fund, 2018), Ugx 3 trillion (USD 795,189,900) was invested in training through the Women Enterprise Fund in 2017, and it is worth noting that a significant amount of Ugx 3.5 billion (USD 927,721.55) was designated in 2015 for the establishment of a business development skills clinic (Uganda Youth Venture Capital Fund, 2018). Despite the above interventions, most women-owned SMEs in Uganda have not yet fully demonstrated their effectiveness in their operations. Specifically, the lifetime of women-owned firms is notably low, with the vast majority failing to survive beyond five years (Kangethe, 2018; Ojiambo, 2016). In addition, the World Bank (2019) reported that women-owned businesses make less than 30% of the profits of their male counterparts.

Moreover, Women-owned SMEs in Uganda are reported to have low levels of innovation with approximately 37% having less chances of introducing a new or significantly improved product compared with men (Copley *et al.*, 2021). The authors further reported that there is a significant number of women entrepreneurs who are not supported by their spouses especially in balancing family and business-related activities as well as providing financial support that are noted to be key success factors in operating an effective business enterprise. Yet, Sallah and Caesar (2020) contend that support from spouses facilitates identification of feasible and viable business opportunities, as well as developing innovative products that are vital in achieving entrepreneurial effectiveness of their businesses.

In fostering the entrepreneurial effectiveness of women-owned businesses, the social support theory suggests that spouses should provide instrumental, financial and emotional support that is vital in facilitating business activities as well as operating their businesses with confidence (Neneh, 2022; Khayru, Nichen, Chairunnas, Safaruddin, & Tahir, 2021). In the event of challenges, this support enables them to bounce back and effectively operate their businesses (Korber & McNaughton, 2017). In addition, the Schumpeterian theory presents the need for women entrepreneurs to demonstrate innovative behaviours that enable them to come up with new or significantly improved business activities (Mehmood *et al.*, 2019). This is evident when they come up with new or improved products and services that are important in facilitating the effectiveness of their businesses.

A review of the extant literature on women-owned businesses shows that the current focus is on women empowerment (Noor, Isa, and Nor, 2021), financial support (Ali, 2018), cultural (Akinbami, & Aransiola, 2016), problems and opportunities (Ghouse, Durrah, and McElwee, 2021), and the digital literacy of women entrepreneurs (Fauzi, Antoni, and Suwarni, 2021), balancing business and family responsibilities (Xheneti, Karki, and Madden, 2021), with less focus on the entrepreneurial effectiveness of their businesses. For studies on strategies to enhance the survival, growth, performance, and overall effectiveness of women owned

enterprises, much attention has been given to entrepreneurial characteristics such as need for achievement and external factors that are both economic and social in nature (Khan *et al.*, 2021), determination, resilience, education, and satisfaction (Agarwal *et al.*, 2022), risk aversion and culture (Gimenez-Jimenez *et al.*, 2022), networking, motivation, training and development, socio-cultural, financing and business environment (Jha, and Alam, 2022), demographic characteristics of women including education, family size, business experience and marital status (Beriso, 2021). It is also evident that extant studies have investigated women entrepreneurs operating in other sectors such as tourism (Ali, 2018). Moreover, in their literature review of female entrepreneurship in Africa, Ojong, Simba, and Dana (2021) present a need for future studies to interrogate innovative strategies that can unlock the growth and effectiveness potential of women owned businesses.

As such, we know little about the contribution of spouse support and the innovative behaviour of women in fostering the entrepreneurial effectiveness of women-owned businesses. In addition, little information is available on the mediating role of innovative behaviour in the association between spouse support and entrepreneurial effectiveness. This is because when husbands support their wives in operating their businesses, women entrepreneurs get time to think of new or significantly improved products and services that can be offered to meet the changing needs of their customers, which can potentially result in increased sales, profits, and overall effectiveness of the enterprise. Moreover, there seems to be no study that has focused on women operating in the agricultural sector, yet the sector employs 70% of the total population in Uganda, with the majority being women (Theeuwes *et al.*, 2021; Bagamba *et al.*, 2023). In addressing gaps in extant literature, this study was conducted to establish whether innovative behaviour mediates the relationship between spouse support and entrepreneurial effectiveness of Women-owned agricultural Small and Medium Enterprises in Uganda.

The rest of this paper is structured as follows: The next section covers the literature review. This is followed by the research methodology that was used in the study. Then the results and discussion are presented, followed by the summary and conclusion.

2. Literature Review

2.1. Theoretical Foundation

We synthesized the social support and Schumpeterian theories to explain the entrepreneurial effectiveness of women-owned agricultural small and medium enterprises (SMEs) in Uganda. The social support theory in particular is centered on the proposition that financial, informational, and emotional support provided by different stakeholders is vital in catalyzing effectiveness of business activities (Banurah, 1986). In the context of this study, the effectiveness and success of business activities undertaken by women entrepreneurs such as opportunity identification, business start and growth largely depend on the support they get from family members especially their spouses (Bates & Cohen, 2014). Specifically, spouses provide women entrepreneurs with financial support that is vital in facilitating the day to day operations of their businesses such as; buying stock, paying utilities like water and electricity as well as rent, and labour that are vital for the smooth running of the business and eventual attainment of business effectiveness (Rembulan, Rahmawati & Indudewi, 2016). In the same vein, women entrepreneurs attain emotional support from their spouses (Trettevik, 2018). This revolves around providing them with advice and guidance concerning business activities, comforting them in hard and stressful moments, encouraging them to push on despite the challenges as well as providing them a listening ear (Abou-Moghli & Al-

Abdallah, 2019). Such support makes women entrepreneurs more confident and resilient while operating their businesses which is a key ingredient in attaining entrepreneurial effectiveness of the women-owned businesses.

The social support theory is complimented by the Schumpeterian theory which offers a theoretical foundation for providing mechanisms that promote entrepreneurial effectiveness. Schumpeter (1942) indicates that entrepreneurs are innovators, and as they identify or recognize opportunities that are exploited to start, operate and grow their businesses, they need to develop innovative behaviours. These behaviours enable women entrepreneurs to come up with new or significantly improved products, services, processes, systems and novel marketing approaches that are vital in unlocking the entrepreneurial effectiveness of their businesses (Wijayasinghe, 2019). This suggests that women entrepreneurs with better innovative behaviours are likely to engage in activities that increase the value proposition of the businesses as compared to their less innovative counterparts.

2.2. Entrepreneurial Effectiveness

The concept of entrepreneurial effectiveness is acknowledged as a vital phenomenon in measuring the success and performance of entrepreneurial actions across the globe. Burbano (2015) attributes entrepreneurial effectiveness to the selection of the right activities that need to be done in order to explore business opportunities, entrepreneurial goal intention, and undertaking entrepreneurial actions. This means exploring the business opportunity to penetrate the niche market with the goal of addressing market needs while achieving business and entrepreneurial goals that revolve around increased sales, profits, and overall growth of the business.

Cavusgil and Knight (2015) further assert that entrepreneur's ability to recognize opportunity through business start-up, entrepreneurial goal intention to increase numbers of customers, and entrepreneurial action with the growth of the business reflect entrepreneurial effectiveness. As such, this study views entrepreneurial effectiveness in terms of opportunity recognition, venture creation, and venture growth (Cardon, Wincent, Singh, and Drnovsek, 2009), donating the potential of the women entrepreneurs to identify lucrative business ideas or opportunities that are exploited to start and operate a successful business.

2.3. Spouse Support and Entrepreneurial Effectiveness

Extant literature presents spouse support as one of the antecedents of entrepreneurial effectiveness. Spouse support entails husbands providing moral, financial, and social support to their wives as they start, operate, and grow their businesses (Ummiroh *et al.*, 2022). Specifically, some husbands who may not directly engage in the entrepreneurial activities of their wives use indirect support to inform them of additional capital that women entrepreneurs use to smoothly undertake business activities. while other men provide both financial and physical support needed for the effective operation of the business. This support drives the psychological perception of women in the execution of their tasks to achieve growth in the business (Sundaesan, 2017).

According to Ilie *et al.* (2021), women entrepreneurs feel motivated whenever spouses support them in the business operation, as it creates a favourable environment for women to adequately focus on their businesses to achieve entrepreneurial effectiveness. In the same vein, Ummiroh, Schwab, and Dhewanto (2022) revealed that the participation of the husband in women owned business yielded certain advantages in terms of achieving a harmonious equilibrium between work and family responsibilities. Furthermore, Mugabi (2014)

emphasized that spouse support to women entrepreneurs has a positive significant association to entrepreneurial effectiveness. In particular, support from spouse enables women to learn how business activities are planned and executed in the most effective and efficient way with the goal of boosting growth, performance and overall success of their businesses.

Regarding recognizing entrepreneurial opportunities, Sommarström *et al.* (2020) noted that transforming ideas into economic opportunities is the decisive issue in entrepreneurship development, which requires the joint involvement of spouses and women in the business operations to foster the growth of the enterprise. Moreover, Awotoye and Stevens (2023) reported that spouse support facilitates the entrepreneurial intention of women and entrepreneurial effectiveness using evidence from Nigeria. This suggests that right from the initial stages, a spouse is vitally important in shaping the entrepreneurial intention of women, which lays the foundation for starting and operating an effective entrepreneurial venture. However, engagement with extant literature shows that the contribution of spouse support in enhancing entrepreneurial effectiveness of women-owned businesses using evidence from the agricultural sector of a developing nation like Uganda is scarce, presenting a need for the current study, and we therefore hypothesize that;

H1: There is a significant relationship between Spouse support and entrepreneurial effectiveness of women-owned agricultural SMEs

2.4. Innovative Behaviour and Entrepreneurial Effectiveness

Innovation behaviour is an important trait that entrepreneurs need to achieve effectiveness in their businesses. According to Wang *et al.* (2015) and Kang and Lee (2017), the innovation behaviour of individuals such as women is complex, consisting of a three-stage process. In the first stage of innovative behaviour, a woman entrepreneur recognizes a problem and generates novel or significantly improved solutions and ideas. Subsequently, an individual endeavours to explore strategies for advancing their proposed solutions and concepts, while concurrently establishing credibility and gathering backing from internal and external stakeholders. During the final phase of the innovation process, an individual who demonstrates innovative conduct materializes the concept or solution by creating a prototype or model of the invention. This prototype can be experienced, applied, and utilised within a work role, a group, or the entire organisation (Messmann and Mulder, 2015; Veenendaal and Bondarouk, 2015).

Based on the above stages, innovative behaviour of women entrepreneurs in this study is conceptualized as a multistage process in which an individual identifies a problem or opportunity, generates new (novel or adapted) ideas and solutions, works to promote and build support for them, and creates an applicable prototype or model for the use and benefit of the organisation or its parts. As such, innovation behaviour is acknowledged as one of the most effective ways of generating added value using existing resources to support the business operations in a more effective way (Sipahi, 2017).

Review of extant literature on innovative behaviour indicates that it has a significant contribution in fostering entrepreneurial effectiveness. For example, Domi, Keco, Capelleras and Mehmeti (2019) revealed that innovative behaviour of SMEs positively and significantly influences their performance using evidence from the tourism sector of Albania. This means that when SMEs integrate ICT and network with other players in the industry, it increases their market share, sales and access to vital resources needed in unlocking their potential to attain entrepreneurial effectiveness. In another study by Omri (2015) on the performance of SMEs, it was revealed that innovative behavior provides a conduit through which innovation output improves business performance. This suggests that the more innovative SMEs are in

terms of introducing new products or services, the more they improve performance hence effectiveness.

Yensu *et al.* (2016), asserts that creating new perspective of operating business has a positive contribution on the entrepreneurial effectiveness. The ability to create ideas in a way others have not identified helps entrepreneurs to explore potential markets to achieve growth of the enterprise. Furthermore, Yolac, (2018), establishes that active involvement in innovation has a positive relationship on identification of business opportunities to achieve growth. Furthermore, (Juliana *et al.*, 2021), asserts that innovation has a positive significant association on entrepreneurship development. Based on the foregoing discussion, we note that most studies have interrogated innovative behavior in explicating SMEs performance and survival that are part of entrepreneurial effectiveness living out other important aspects like opportunity recognition, the startup stage that are vital in appreciating the effectiveness of the SMEs during their start up journey. As such it is hypothesized that;

H2: There is a significant relationship between innovative behaviour and entrepreneurial effectiveness of women-owned agricultural SMEs.

2.5. The Mediating Role of Innovative Behaviour

Analysis of extant literature indicates that less has been done to investigate the mediating role of innovative behaviour in the relationship between spouse support and entrepreneurial effectiveness. Specifically, Danish *et al.* (2019) investigated the mediating role of innovative behavior in the relationship between openness to change, self-efficacy and entrepreneurial culture. Li *et al.* (2022) explored the relationship mediating role of innovation in the relationship between personality traits and entrepreneurial intention among college students. Yodchai *et al.* (2022) investigated the mediating role of innovative capability in the relationship between innovative mindset and entrepreneurial success in the tourism industry. Sawaeen and Ali (2020) examined the mediating role of innovation capacity in the relationship between entrepreneurial leadership, learning orientation and organizational performance of SMEs. Yet through support from their spouses, women are able to attain enhanced innovativeness. This is possible through giving them emotional encouragement, helping with household chores freeing them time as well as giving them mental energy to focus on new business ideas. Additionally, through the spouse support, they have their confidence boosted as well as great new ideas that enable them get new ideas and innovations. Basing on the foregoing discussion, it can be hypothesized that;

H3: Innovative behaviour significantly mediates the relationship between spouse support and entrepreneurial effectiveness of women-owned agricultural SMEs

3. Methodology

3.1. Research Design

The study used a casual research design with a quantitative approach (Cresswell, 2014). A casual design was used to establish whether innovation behaviour mediates the relationship between spouse support and the entrepreneurial effectiveness of Women-owned agricultural SMEs in Uganda using a quantitative approach. This facilitated the collection of numerical data by using a self-administered questionnaire of 380 women entrepreneurs from a population of 7,457 agricultural businesses (Uganda Investment Authority and Ernst & Young, 2019) using the sample size determination table developed by Krejcie and Morgan in 1970 (Krejcie & Morgan, 1970). A total of 380 questionnaires were issued to women

entrepreneurs, of which 370 were considered viable, resulting in a response rate of 97%. Within the framework of this research, the focus is on SMEs in the agricultural sector that are owned by women. These enterprises are considered the primary units of analysis, while the individuals who own and operate these businesses serve as the units of inquiry for the study.

3.2. Sampling Procedure and Data Collection

The study adopted multi-stage sampling to select the study sample at different stages (Rahman, Tabash, Salamzadeh, Abdul, and Rahaman, 2022). To begin with, we adopted a purposive sample to select the three districts—Mityana, Mubende, and Mukono—that were considered in this study. According to the Uganda Bureau of Statistics (UBOS, 2019), these districts have the highest proportion of innovative women-owned SMEs directly involved in agribusiness. The next step was to use convenience sampling and snowballing to attract female entrepreneurs (Lenaini, 2021; Leighton, Kardong-Edgren, Schneidereith, and Foisy-Doll, 2021; Stratton, 2021). Specifically, snowballing enabled the researchers to get support from women entrepreneurs in that, after engaging them in the data collection exercise, they recommended other women who were operating agricultural businesses to participate in the study at their convenience. This process continued until 370 women entrepreneurs were engaged. Using these techniques, the researchers were able to provide respondents with comprehensive information about the study phenomena as well as encourage them to participate in the study willingly. This means that all women who were not ready to engage in the study activities were excluded from the data collection exercise.

3.3. Data Collection

To collect quantitative data for the study, a self-administered questionnaire was used (Creswell, 2014). The instrument addressed firm and respondent characteristics, spouse support, innovative behaviour, and entrepreneurial effectiveness. The questionnaire used to collect data from the women-owned agricultural SMEs was written in English. The questionnaire items were anchored on the 5-point scale of 1= strongly disagree; 2= disagree; 3= undecided; 4= agree; and 5 = strongly agree. The scale was adopted since it was easy to understand by the respondents and would provide accurate and reliable data to address the study hypotheses (South *et al.*, 2022).

3.4. Measurement and Operationalization of the Study Variables

The study focused on entrepreneurial effectiveness as the dependent variable, which was assessed through the measurement of opportunity recognition, venture development, and venture growth (Cardon *et al.*, 2009). Some of the items include: *“I easily identify feasible ideas from the environment as opposed to my competitors”*; *“I can quickly identify the needs of the customers”*; *“I have a well-written plan for my business with clear goals and objectives”*; *I have mobilized resources sufficient to operate my business”*; and *“I am determined to create a new branch to increase sales and market for the business.”* The independent variable, spouse support, was operationalized through the measurement of financial support and emotional support (Wolf & Frese, 2018). Sample questions include: *“My spouse encourages me to attend trainings that offer new ideas”*; *“We are always thinking about new ways of improving the business”*; *“My spouse provides funds for the enterprise”*; and *“My spouse provides advice on proper financial management.”* On the other hand, the mediating variable, innovative behaviour, was operationalized by assessing the generation of ideas, promotion of ideas, and realization of ideas (Messmann and Mulder, 2012). Sample items include: *“I constantly talk to friends to get new ideas”*; *“when I have a*

new business idea, I share it with people around me”; “whenever I have a new business idea, I want to test it out”; and “whenever I conceive a new business idea, I implement it.”

3.5. Data Analysis

The quantitative data collected from 370 women owned agricultural SMEs in the central region with a focus on Mityana, Mubende, and Mukono was subjected to analysis using SPSS and Medgraph - Excel Version. Correlation, hierarchical regression, and mediation analysis were performed on the data to examine the mediating effect of innovative behaviour in the relationship between spouse support and entrepreneurial effectiveness of Women-owned agricultural SMEs.

3.6. Ethical Considerations

The researcher followed the standard ethical considerations, which include obtaining the IRB's ethical clearance from Makerere University, ensuring the privacy of respondents, prioritizing confidentiality as respondent’s identifiers were not required, referencing all scholars, and seeking consent and permission from the women-owned SMEs.

4. Results and Discussion

4.1. Correlation Analysis

The Pearson's correlation analysis was performed to assess the magnitude of linear relationships between the variables under investigation, and is represented by the symbol "r". The Pearson correlation coefficient, denoted as r, is capable of assuming values within the range of +1 to -1. A value of zero signifies the absence of any link between the two variables. A value that is greater than zero signifies a positive correlation, implying that if one variable grows, the other variable also increases. A number below zero signifies a negative correlation, denoting that a rise in the value of one variable corresponds to a drop in the value of the other variable. The measurement of the study variables was conducted using a continuous scale, leading to the selection of Pearson correlation as the most suitable statistical test for examining the associations among the variables. Thus, correlation results are presented in Table 1.

Table 1.

Correlational analysis results

Variables	1	2	3	4	5	6	7	8
Financial support (1)	1							
Emotional support (2)	.567**	1						
Spouse support (3)	.782**	.688**	1					
Idea generation (4)	.608**	.426**	.583**	1				
Idea promotion (5)	.599**	.444**	.588**	.749**	1			
Idea realization (6)	.476**	.447**	.521**	.592**	.611**	1		
Innovative behaviour (7)	.634**	.503**	.641**	.777**	.782**	.765**	1	
Entrepreneurial effectiveness (8)	.626**	.535**	.656**	.652**	.684**	.575**	.723**	1

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

Source: Authors own work

Study results in Table 1 show that there is a significant positive relationship between spouse support and entrepreneurial effectiveness ($r=.656^{**}$, $p\leq.01$). This suggests that changes in spouse support are related to positive changes in the entrepreneurial effectiveness of women-owned agricultural SMEs, thus providing initial support to **H1**: There is a significant

relationship between spouse support and the entrepreneurial effectiveness of women-owned agricultural SMEs. Our results also indicate that there is a positive association between innovative behaviour and entrepreneurial effectiveness ($r=.723^{**}$, $p\leq.01$). This means that a change in innovative behaviour is associated with a positive change in the entrepreneurial effectiveness of women-owned agricultural SMEs, hence rendering preliminary support to **H2**: There is a significant relationship between innovative behaviour and the entrepreneurial effectiveness of women-owned agricultural SMEs. Likewise, study results indicate that there is a significant positive association between spouse support and innovative behaviour ($r=.641^{**}$, $p\leq.01$). This demonstrates that a change in spouse support is associated with a positive change in the innovative behaviour of women-owned agricultural SMEs.

4.2. Regression Analysis

The regression analysis model was used to determine the extent to which the predictor variables explicate the outcome variable. Specifically, hierarchal regression analysis was performed to test for the effect of the independent variables on the dependent variable. This was done to determine the extent to which the independent variables (spouse support and innovative behaviour) impact the dependent variable (the entrepreneurial effectiveness of women entrepreneurs). That is, the percentage change in the dependent variable is accounted for by the change in the independent variable. Regression findings are presented in Table 2.

Table 2.
Hierarchical Regression model

Variables	Model I	Model II	Model III	Collinearity Statistics	
				Tolerance	VIF
Constant	3.941	1.108	.115		
Control Variables					
Business size	-.108	-.044	-.010	.983	1.018
Independent Variables					
Spouse support		.651**	.326**	.588	1.700
Innovative behaviour			.512**	.584	1.712
Model summary					
R	.108	.657	.765		
R Square	.012	.432	.585		
Adjusted R Square	.006	.426	.578		
R Square change	.012	.420	.153		
Model F	2.167	69.521	85.461		
Sig	.143	.000	.000		
Durbin Watson			1.813		

Dependent variable: Entrepreneurial Effectiveness

Source: Authors own work

The examination of multicollinearity was conducted in order to ascertain that collinearity does not provide any obstacles for the use of multiple regression in testing the hypotheses. Thus, study results in Table 2 designate that Tolerance and VIF respectively for spouse support 0.588 and 1.700 and innovative behaviour is 0.584 and 1.712. Similarly, the average VIF for all the study variables is 1.706 which is not significantly greater than 1, suggesting the absence of any significant reason for apprehension over collinearity. It can be inferred that the variables under consideration are not highly associated.

In Model I, the control variables were regressed against entrepreneurial effectiveness. The study results in Table demonstrate that business size ($\beta = -.108$, $P\leq 0.05$) has an insignificant contribution to predicting the entrepreneurial effectiveness of women-owned agricultural

SMEs. The model accounts for 1.2% of the change in entrepreneurial effectiveness of women-owned SMEs. In Model II, spouse support was added to the equation. Our results in Table 2 show that spouse support contributes 42% change in entrepreneurial effectiveness of women-owned SMEs. Therefore, for a unit alteration in spouse support, entrepreneurial effectiveness of SMEs would improve by .651 units. The results show that spouse support is a significant antecedent of entrepreneurial effectiveness of women-owned agricultural SMEs in Uganda ($\beta = 0.652$, $P \leq 0.01$) and thus confirming **H1**.

This finding implies that when spouses provide financial and emotional support to their wives, they will get enough capital needed to generate business ideas, conduct feasibility studies with the goal of selecting the most viable business ideas, implement them, and facilitate their survival and eventual growth, which characterizes entrepreneurial effectiveness. Our findings are in agreement with Ilie *et al.* (2021) who revealed that women entrepreneurs feel motivated whenever spouses support them in the business operation, since it creates a favourable environment for women to adequately focus on their business to achieve entrepreneurial effectiveness. Ali (2018) add that financial support is an important antecedent of female entrepreneurs' growth intentions using evidence of women entrepreneurs from Ghana's tourism sector. Likewise, Ummiroh *et al.* (2022) established that the participation of the husband in women owned business yielded certain advantages in terms of achieving a harmonious equilibrium between work and family responsibilities. This denotes that when spouses fully support their wives at home and in businesses, women entrepreneurs find it easy to execute all their business without any worries contributing to the realization of entrepreneurial effectiveness in their businesses.

In Model III, innovative behaviour was included in the equation. Study findings in Table 2 show that innovative behaviour of women accounts for 15,3% of the variance in entrepreneurial effectiveness of women-owned SMEs. Thus, for a unit variation in innovative behaviour, entrepreneurial effectiveness is likely to improve by .512 units. The results illustrate that innovative behaviour is a significant antecedent of entrepreneurial effectiveness in SMEs ($\beta = 0.512$, $P \leq 0.01$), thus validating **H2** of the study. This suggests that when women entrepreneurs have innovative behaviours that are characterized by idea generation, promotion, and realization, they will be in a position to come up with new or significantly improved products and services that meet contemporary customer needs and thus increase sales and profits, which translates into the entrepreneurial effectiveness of women-owned SMEs. Study findings are supported by Domi *et al.* (2019) who reported that innovative behaviour of SMEs positively and significantly influence their performance using evidence from the tourism sector of Albania. This further resonates with Omri (2015), who demonstrated that innovative behaviour acts on innovation output, eventually causing a significant positive effect on business performance, and likewise on the entrepreneurial effectiveness of SMEs.

In summary, all the variables regressed in the overall model explain 57.8% (R Square=.585) of the variations in the entrepreneurial effectiveness of women-owned agricultural SMEs. This means that other factors not taken into account in this study account for 42.2%. In addition, comparing the two independent variables entered in the model, the results indicated that spouse support contributes more to the entrepreneurial effectiveness of SMEs compared to innovative behaviour by a significant margin of 26.7%. This suggests that for women-owned businesses to become more effective, they should be highly supported by their husbands in terms of providing financial and emotional support that will unlock their innovative potential and foster the effectiveness of their businesses.

4.3. Mediation Tests

In testing for the mediating effect of innovative behaviour in the relationship between spouse support and entrepreneurial effectiveness of women owned-SMEs, the conditions proposed by Baron and Kenny (1986) for examining mediation were duly reviewed and successfully satisfied. Thus, regression results presented in Table 3 demonstrate that the Baron requirements for establishing the mediating function of innovative behaviour were met. As such, spouse support accounts for a significant variation in entrepreneurial effectiveness ($\beta = .656$, $p < .01$). Relatedly, spouse support accounts for a significant variation in innovative behaviour ($\beta = .641$, $p < .01$). Furthermore, innovative behaviour accounts for change in entrepreneurial effectiveness ($\beta = .513$, $p < .01$). Finally, the absolute effect of spouse support on entrepreneurial effectiveness reduced in the third model ($\beta = .326$) from that in model 1 ($\beta = .656$). Thus, all conditions have been satisfied, thereby confirming that innovative behaviour is a true mediator in the relationship between spouse support and entrepreneurial effectiveness of women owned-SMEs.

After satisfying Baron and Kenny (1986) condition, further analysis was conducted to test the significance of the mediation effect. This was achieved through generating a Sobel z-value using a Medgraph. Study results in figure I (Medgraph) show a large and significant Sobel z-value 3.21 ($p < .05$). The figure indicates that when innovative behaviour is introduced, the standardized beta (β) for the relationship between spouse support and entrepreneurial effectiveness reduced from $\beta = .656$ to $\beta = .326$. This confirms that innovative behaviour mediate the relationship between spouse support and entrepreneurial effectiveness and thus **H4** is supported. Further still, since the correlation between the spouse support and entrepreneurial effectiveness has not been dropped to zero on adding innovative behaviour, it suggests that a partial mediation exists. A ratio index (i.e. indirect effect/total effect) of 50% given by $(0.328/0.656 * 100)$ was calculated. This shows that 50% of the effect of spouse support on entrepreneurial effectiveness passes through innovative behaviour while the 50% is a direct effect as indicted in Figure 1.

Table 3.

Mediation results

Type of mediation	Significant	
Sobel z-value	6.682568	$p = <0.000001$
95% Symmetrical Confidence interval		
Lower	0.25349	
Higher	0.46391	
Unstandardized indirect effect		
a*b	0.3587	
se	0.05368	
Effective Size measures		
<u>Standardised Coefficients</u>		R² measures
Total:	0.656	
Direct:	0.326	
Indirect:	0.328	
Indirect to Total ratio	0.501	

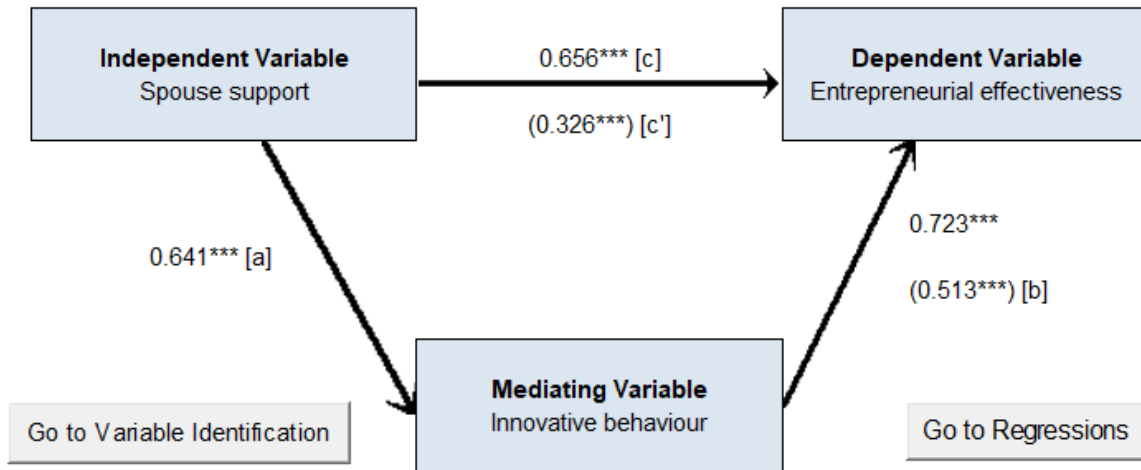


Figure 1. A Medgraph showing the mediation effect of innovative behaviour in the relationship spouse support and entrepreneurial effectiveness of women-owned agricultural SMEs

Source: Authors own work

Our findings make a unique contribution to the existing body of knowledge since there seems to be no study that has directly interrogated the mediation effect of innovation behaviour in the study variables. As such, past studies have focused on the mediation role of innovation behaviour in the association between openness to change, self-efficacy, and entrepreneurial culture (Danish *et al.*, 2019), personality traits and entrepreneurial intention (Li *et al.*, 2022), and mindset and entrepreneurial success (Yodchai *et al.*, 2022).

5. Summary and Conclusion

The purpose of this study was to establish whether innovative behaviour mediates the relationship between spouse support and entrepreneurial effectiveness of Women-owned agricultural Small and Medium Enterprises in Uganda. This was realised through a questionnaire survey. Synthesis of the study results shows that spouse support and innovative behaviour positively and significantly explain entrepreneurial effectiveness of Women-owned agricultural SMEs. In addition, Spouse support is positively and significantly associated with innovative behaviour, and lastly, innovative behaviour partially mediates the association between spouse support and entrepreneurial effectiveness.

Drawing upon the findings and subsequent discussions, this study offers significant contributions to the realms of academia, policy, and the business community. Accordingly, this study makes a novel contribution to the existing body of knowledge by documenting the interplay of spouse support and innovative behaviour with entrepreneurial effectiveness of SMEs. In addition, existing studies have partially interrogated entrepreneurial effectiveness with a focus on growth and performance, leaving out important effectiveness aspects of opportunity recognition and startup that are vital in the entrepreneurial journey. More importantly, we have established that innovative behaviour partially mediates spouse support and entrepreneurial effectiveness of women-owned agricultural SMEs, unlike extant studies that interrogated the direct relationship between the study variables in predicting the study phenomenon.

Thus, women entrepreneurs should enhance their innovative behaviour through generating ideas, promoting ideas, and implementing their ideas with the goal of developing new or significantly improved products, services, systems, processes, and marketing strategies that unlock the potential of their businesses and achieve effectiveness. In addition, it is clear from

this study that spouses should support their wives in the process of starting and operating their businesses. This gives women entrepreneurs ample time to think about new business ideas that enable them to offer new products and services that address contemporary customer needs. Likewise, women entrepreneurs are in a position to get financial support from their spouses, which is crucial in financing the realization of the generated ideas as a pathway for achieving entrepreneurial effectiveness.

For policymakers, they should support women entrepreneurs to become more creative and innovative through skilling. It is important to note that existing programmes like the Uganda Women Entrepreneurship Programme (UWEP) mainly focus on providing women with startup capital and marketing for the product, and less focus is given to their creative and innovative behaviour during the skilling programmes undertaken. Yet creativity and innovation are recognized as key ingredients in starting and operating a successful and effective entrepreneurial venture (see Khan, Azharuddin, Khan, and Ali, 2021; Sarwoko and Nurfarida, 2021).

Nevertheless, it is important to acknowledge the limits of this study, which may warrant more investigation in future research, whether in the same or different areas of inquiry. As such, the current study employed a cross-sectional design, confining its scope to a specific point in time for data collection. Conducting a longitudinal study is important in order to account for the potential fluctuations in perceptions related to the topic under investigation. Furthermore, it is important to note that the study only employed quantitative methods. Consequently, it is necessary to consider incorporating mixed methodologies or qualitative approaches to gain a more comprehensive insight into the entrepreneurial effectiveness of women-owned agricultural SMEs. Ultimately, the research elucidated that 50% of the variability in entrepreneurial effectiveness was accounted for, suggesting that forthcoming investigations could delve into more potential factors.

References

- Agarwal, S., Ramadani, V., Dana, L. P., Agrawal, V., & Dixit, J. K. (2022). Assessment of the significance of factors affecting the growth of women entrepreneurs: study based on experience categorization. *Journal of Entrepreneurship in Emerging Economies*, 14(1), 111-136. <https://doi.org/10.1108/JEEE-08-2020-0313>
- Akinbami, C. A. O., & Aransiola, J. O. (2016). Qualitative exploration of cultural practices inhibiting rural women entrepreneurship development in selected communities in Nigeria. *Journal of Small Business & Entrepreneurship*, 28(2), 151-167. <https://doi.org/10.1080/08276331.2015.1102476>
- Ali, R. S. (2018). Determinants of female entrepreneurs growth intentions: A case of female-owned small businesses in Ghana's tourism sector. *Journal of Small Business and Enterprise Development*, 25(3), 387-404. <https://doi.org/10.1108/JSBED-02-2017-0057>
- Ali, R. S. (2018). Determinants of female entrepreneurs' growth intentions: A case of female-owned small businesses in Ghana's tourism sector. *Journal of Small Business and Enterprise Development*, 25(3), 387-404.
- Awotoye, Y. F., & Stevens, C. E. (2023). Gendered Perceptions of Spousal Support and Entrepreneurial Intention: Evidence from Nigeria. *American Journal of Management*, 23(2), 45-61. <https://doi.org/10.33423/ajm.v23i2.6053>

- Bagamba, F., Ntakyo, P. R., Otim, G., Spielman, D. J., & Van Campenhout, B. (2023). Policy and performance in Uganda's seed sector: Opportunities and challenges. *Development Policy Review*, 41(3), e12665. <https://doi.org/10.1111/dpr.12665>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Beriso, B. S. (2021). Determinants of economic achievement for women entrepreneurs in Ethiopia. *Journal of Innovation and Entrepreneurship*, 10(1), 5. <https://doi.org/10.1186/s13731-020-00141-5>
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of management Review*, 34(3), 511-532. <https://doi.org/10.5465/amr.2009.40633190>
- Copley, A., Gokalp, B., & Kirkwood, D. (2021). *Unlocking the Potential of Women Entrepreneurs in Uganda* (No. 36220). The World Bank Group.
- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.
- Danish, R. Q., Asghar, J., Ahmad, Z., & Ali, H. F. (2019). Factors affecting “entrepreneurial culture”: the mediating role of creativity. *Journal of Innovation and Entrepreneurship*, 8(1), 1-12. <https://doi.org/10.1186/s13731-019-0108-9>
- Domi, S., Keco, R., Capelleras, J. L., & Mehmeti, G. (2019). Effects of innovativeness and innovation behavior on tourism SMEs performance: The case of Albania. *Economics & sociology*, 12(3), 67-85. <https://doi.org/10.14254/2071-789X.2019/12-3/5>
- Fauzi, F., Antoni, D., & Suwarni, E. (2021). Mapping potential sectors based on financial and digital literacy of women entrepreneurs: A study of the developing economy. *Journal of Governance and Regulation/Volume*, 10(2). <https://doi.org/10.22495/jgrv10i2siart12>
- Ghose, S. M., Durrah, O., & McElwee, G. (2021). Rural women entrepreneurs in Oman: problems and opportunities. *International Journal of Entrepreneurial Behavior & Research*, 27(7), 1674-1695. <https://doi.org/10.1108/IJEER-03-2021-0209>
- Gimenez-Jimenez, D., Edelman, L. F., Dawson, A., & Calabrò, A. (2022). Women entrepreneurs' progress in the venturing process: The impact of risk aversion and culture. *Small Business Economics*, 58(2), 1091-1111. <https://doi.org/10.1007/s11187-020-00435-8>
- Hagabirema, K., & Kungu, G. K. (2020). Business Support Services and Performance of Small Medium Enterprises in Rwanda: Case of BDF Supported SMEs in Gicumbi District. *International Journal of Scientific and Research Publications (IJSRP)*, 10(4), p10085. <https://doi.org/10.29322/IJSRP.10.04.2020.p10085>
- Jha, P., & Alam, M. M. (2022). Antecedents of women entrepreneurs' performance: an empirical perspective. *Management Decision*, 60(1), 86-122. <https://doi.org/10.1108/MD-07-2020-0849>
- Khan, M. A. I., Azharuddin, S., Khan, S. S., & Ali, M. M. (2021). Influence of Entrepreneur Traits on SME's Financial Performance: Case Study of GCC Entrepreneurs Who Survived during COVID-19. *International Journal of Advance Research and Innovative Ideas in Education*, e-ISSN, 2395-4396.

- Khan, R. U., Salamzadeh, Y., Shah, S. Z. A., & Hussain, M. (2021). Factors affecting women entrepreneurs' success: a study of small-and medium-sized enterprises in emerging market of Pakistan. *Journal of innovation and entrepreneurship*, 10(1), 1-21. <https://doi.org/10.1186/s13731-021-00145-9>
- Khayru, R. K., Nichen, N., Chairunnas, A., Safaruddin, S., & Tahir, M. (2021). Study on the relationship between social support and entrepreneurship intention experienced by adolescents. *Journal of Social Science Studies (JOS3)*, 1(2), 47-51. <https://doi.org/10.56348/jos3.v1i2.14>
- Korber, S., & McNaughton, R. B. (2017). Resilience and entrepreneurship: a systematic literature review. *International Journal of Entrepreneurial Behavior & Research*, 24(7), 1129-1154. <https://doi.org/10.1108/IJEBR-10-2016-0356>
- Leighton, K., Kardong-Edgren, S., Schneidereith, T., & Foisy-Doll, C. (2021). Using social media and snowball sampling as an alternative recruitment strategy for research. *Clinical simulation in nursing*, 55, 37-42. <https://doi.org/10.1016/j.ecns.2021.03.006>
- Lenaini, I. (2021). Teknik pengambilan sampel purposive dan snowball sampling. *Historis: Jurnal Kajian, Penelitian dan Pengembangan Pendidikan Sejarah*, 6(1), 33-39.
- Li, L. N., Huang, J. H., & Gao, S. Y. (2022). The relationship between personality traits and entrepreneurial intention among college students: The mediating role of creativity. *Frontiers in Psychology*, 13, 822206. <https://doi.org/10.3389/fpsyg.2022.822206>
- Mehmood, T., Alzoubi, H. M., Alshurideh, M., Al-Gasaymeh, A., & Ahmed, G. (2019). Schumpeterian entrepreneurship theory: Evolution and relevance. *Academy of Entrepreneurship Journal*, 25(4), 1-10.
- Messmann, G., & Mulder, R. H. (2012). Development of a measurement instrument for innovative work behaviour as a dynamic and context-bound construct. *Human Resource Development International*, 15(1), 43-59.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610. <https://doi.org/10.1080/13678868.2011.646894>
- Neneh, B. N. (2022). Entrepreneurial passion and entrepreneurial intention: the role of social support and entrepreneurial self-efficacy. *Studies in Higher Education*, 47(3), 587-603. <https://doi.org/10.1080/03075079.2020.1770716>
- Noor, S., Isa, F. M., & Nor, L. M. (2021). Women empowerment through women entrepreneurship: a comparison between women entrepreneurs and fulltime housewife in Pakistan. *Iranian Journal of Management Studies*, 14(2), 347-363.
- Ojong, N., Simba, A., & Dana, L. P. (2021). Female entrepreneurship in Africa: A review, trends, and future research directions. *Journal of Business Research*, 132, 233-248. <https://doi.org/10.1016/j.jbusres.2021.04.032>
- Omri, W. (2015). Innovative behavior and venture performance of SMEs: The moderating effect of environmental dynamism. *European Journal of Innovation Management*, 18(2), 195-217. <https://doi.org/10.1108/EJIM-02-2013-0015>
- Rahman, M. M., Tabash, M. I., Salamzadeh, A., Abduli, S., & Rahaman, M. S. (2022). Sampling techniques (probability) for quantitative social science researchers: a conceptual guidelines with examples. *Seeu Review*, 17(1), 42-51. <https://doi.org/10.2478/seeur-2022-0023>

- Sarwoko, E., & Nurfarida, I. N. (2021). Entrepreneurial marketing: Between entrepreneurial personality traits and business performance. *Entrepreneurial Business and Economics Review*, 9(2), 105-118. <https://doi.org/10.15678/EBER.2021.090207>
- Sawaeen, F., & Ali, K. (2020). The impact of entrepreneurial leadership and learning orientation on organizational performance of SMEs: The mediating role of innovation capacity. *Management Science Letters*, 10(2), 369-380. <https://doi.org/10.5267/j.msl.2019.8.033>
- Shaikh, E., Tunio, M. N., & Qureshi, F. (2021). Finance and women's entrepreneurship in DETEs: A literature review. *Entrepreneurial Finance, Innovation and Development*, 191-209. <https://doi.org/10.4324/9781003134282-12>
- South, L., Saffo, D., Vitek, O., Dunne, C., & Borkin, M. A. (2022). Effective use of Likert scales in visualization evaluations: A systematic review. In *Computer Graphics Forum*, 41(3), 43-55. <https://doi.org/10.1111/cgf.14521>
- Stratton, S. J. (2021). Population research: convenience sampling strategies. *Prehospital and disaster Medicine*, 36(4), 373-374. <https://doi.org/10.1017/S1049023X21000649>
- The World Bank (2010). World development indicators data base. Washington, Dc: The World Bank.
- Theeuwens, A., Duplat, V., Wickert, C., & Tjemkes, B. (2021). How do women overcome gender inequality by forming small-scale cooperatives? The case of the agricultural sector in Uganda. *Sustainability*, 13(4), 1797. <https://doi.org/10.3390/su13041797>
- Ummiroh, I. R., Schwab, A., & Dhewanto, W. (2022). Women social entrepreneurs in a Muslim society: How to manage patriarchy and spouses. *Social Enterprise Journal*, 18(4), 660-690. <https://doi.org/10.1108/SEJ-11-2021-0092>
- Wach, D., Gorgievski, M., & Wegge, J. (2017). Entrepreneurs' Subjective Assessment of Success: Development of a Multifaceted Measure. *Academy of Management Proceedings*, 2017(1), 15063. <https://doi.org/10.5465/AMBPP.2017.15063abstract>
- Wolf, K., & Frese, M. (2018). Why husbands matter: Review of spousal influence on women entrepreneurship in sub-Saharan Africa. *Africa Journal of Management*, 4(1), 1-32. <https://doi.org/10.1080/23322373.2018.1428019>
- Xheneti, M., Karki, S. T., & Madden, A. (2021). Negotiating business and family demands within a patriarchal society—the case of women entrepreneurs in the Nepalese context. In *Understanding Women's Entrepreneurship in a Gendered Context*, 93-112. Routledge. <https://doi.org/10.4324/9781003139454-7>
- Yodchai, N., Ly, P. T. M., & Tran, L. T. T. (2022). How the creative mindset affects entrepreneurial success in the tourism sector: the mediating role of innovation capability? *International Journal of Contemporary Hospitality Management*, 34(1), 279-298. <https://doi.org/10.1108/IJCHM-06-2021-0695>