

The role of institutional support on female-owned business sustainability from a developing Country's perspective

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Abstract

Purpose – This study aims to examine the association between institutional support dimensions and female business sustainability in Uganda.

Design/methodology/approach – This study adopted a cross-sectional and quantitative approach. We collected data from a sample of 224 female-owned businesses using a self-administered questionnaire.

Findings – The findings indicate that institutional support is positively and significantly associated with the sustainability of female-owned businesses. The findings further indicate that all dimensions of institutional support (financial support, government policies and programs) are significantly and positively associated with female business sustainability.

Research limitations/implications – This study employed a cross-sectional design; thus, it was impossible to monitor changes in the behavior of female-owned businesses over time. It may be possible to generalize the findings of this study to other developing countries.

Originality/value – This study provides initial empirical evidence on the relationship between institutional support dimensions and female business sustainability using evidence from a developing African economy – Uganda.

Keywords Institutional support, Financial support, Government programs and policies, Female-owned business sustainability, Uganda

Paper type Research paper

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Introduction

The interest in business sustainability has surged among various stakeholders, including policymakers, managers, scholars, media, activists, and non-governmental organizations (Bansal, 2019). The importance of protecting natural resources for a better future has become a pressing concern. However, many businesses have prioritized profit over sustainability, leading to environmental degradation and social injustice (Sendawula *et al.*, 2021). Therefore, female-owned firms must adopt sustainable practices that balance social, environmental, and profit aspects to gain a competitive edge (Kimuli *et al.*, 2022). Sustainable female-owned businesses are crucial for socioeconomic growth, as they prioritize social and environmental goals more than male-owned businesses. These businesses drive economic development through job creation, income generation, innovation, and poverty reduction (Aljuwaiber, 2021). Previous studies have shown that women-owned enterprises can improve livelihoods, economic independence, and social fairness, leading to sustained economic growth (Stoica *et al.*, 2020). However, the Global Entrepreneurship Monitor (GEM) 2021/2022 Women's Entrepreneurship Report revealed a 15% decline in women's startup rates from 2019 to 2022. Moreover, most small businesses in Uganda fail within their first year, with 64% collapsing in the first year and 30% not surviving beyond their third anniversary (Afunadula, 2018). Alarmingly, most female-owned businesses fail within a year despite the support provided (Bosma *et al.*, 2016). The lingering question remains: "What is the relationship between institutional support dimensions and female business sustainability in developing countries?" This puzzle continues to puzzle academicians and policymakers.

Previous research highlights the importance of institutional support, including financial assistance, government policies, and programs, in achieving female business sustainability (Orobia *et al.*, 2020). However, there is a significant knowledge gap in understanding the relationship between institutional support and female business sustainability in developing countries (Orobia *et al.*, 2020). Despite the growing number and size of female-owned businesses, their sustainability has received inadequate scholarly attention (Sharafizad *et al.*, 2022). While economic and environmental sustainability has been extensively researched, social sustainability has been largely overlooked (Elgoibar and Shijaku, 2022). Recent studies emphasize the need for a holistic approach considering social, economic, and environmental sustainability simultaneously (Kimuli *et al.*, 2022). Moreover, creating an enabling environment and policies that support women's entrepreneurial efforts is essential (Nziku and Henry, 2021). Given the current economic challenges, including high competition, low market share, inflation, and high production costs, policymakers cannot afford to ignore the issue of sustainable female entrepreneurship (Orobia *et al.*, 2020).

Despite existing research on female business sustainability (Kazumi and Kawai, 2017; Sendawula *et al.*, 2021; Dawa *et al.*, 2021), there is a significant knowledge gap in understanding how institutional support dimensions impact the sustainability of female-owned businesses in developing countries (Ćurčić *et al.*, 2021). Previous studies have shown that strong institutions can promote business sustainability among women and youth by raising awareness and providing necessary support (Orobia *et al.*, 2020). Additionally, research has highlighted the importance of institutional ecosystems, such as access to gender-sensitive financial services and markets, in influencing women's enterprise sustainability (Ćurčić *et al.*, 2021). Building on institutional theory, this study investigates whether all dimensions of institutional support are crucial for female business sustainability in a developing country context, where empirical evidence is scarce. This paper makes three significant contributions: it informs government policy design to support female entrepreneurs, provides empirical evidence to support institutional theory, and emphasizes the importance of financing, favorable policies, and programs in enhancing female business sustainability.

The next section is the literature review, methodology, the study results, and the discussion of findings. The last section is the conclusion, implications, and limitations.

Literature review

Theoretical review

The institutional theory proposes that institutions shape employee behavior and beliefs through established rules and norms (North, 1990; Scott and Richard Scott, 2014). This theory emphasizes the impact of regulatory, legal, and social norms on businesses and their stakeholders. Employees are encouraged to pursue their interests within established guidelines in formal settings. However, implicit societal regulations also influence employees' beliefs, decisions, and actions, shaping their understanding of what is morally acceptable (Suchman, 1995).

Institutional theory explains how government policies, laws, and regulations impact female-owned businesses, either supporting or hindering their growth (Scott and Richard Scott, 2014). For instance, the theory highlights how societal expectations and gender roles influence women's entrepreneurial endeavors, shaping their access to resources, networks, and opportunities. It also examines how women-owned businesses access capital, credit, and other resources, which may be influenced by institutional barriers or facilitators. It explores how institutional frameworks facilitate or hinder women's access to networks, mentorship, and training, essential for entrepreneurial success.

It guides the assessment of policies and programs aimed at supporting female-owned businesses, helping to identify effective strategies and areas for improvement.

The theory addresses how formal and informal institutions perpetuate gender bias and discrimination, affecting women's ability to start and grow businesses. For instance, family-friendly policies impact women's ability to balance work and family responsibilities while running a business. It also analyzes how women-owned businesses access markets, supply chains, and industry networks, which may be influenced by institutional barriers or facilitators. It emphasizes the role of institutions in providing training and capacity-building programs for women entrepreneurs, enhancing their skills and competitiveness. The theory further explores how institutions promote or hinder women's leadership and role models in business, influencing their aspirations and confidence.

In the context of female-owned businesses in Uganda, the institutional theory suggests that favorable policies, public funding, training, and advice can enhance women's capacity to manage entrepreneurial uncertainty, reducing the high failure rate of female-owned businesses in the country. Insufficient institutional support can hinder the establishment and growth of new businesses, while overly restrictive regulations can stifle firm establishment and growth. Institutional theory thus will help researchers and policymakers to better understand the complex factors influencing female-owned businesses and develop targeted interventions to address the unique challenges they face. Establishing supportive institutional structures can unlock women's entrepreneurial potential, leading to increased success and sustainability in their businesses.

Hypothesis development

This study examines institutional support dimensions (financial support, government policies and government programs) and female business sustainability.

Financial support and female business sustainability

Research has consistently shown a significant link between financing and business sustainability. For instance, Ye and Dela (2023) discovered that green investments and financing have a positive impact on the sustainable performance of foreign chemical industries in Indonesia. Similarly, Gangi et al. (2021) found that green financing can enhance a company's environmental performance and corporate social responsibility practices. Zhou et al. (2020) also noted that green financing has a positive effect on environmental

improvement. Furthermore, [Orobia et al. \(2020\)](#) highlighted the significant impact of finance on business sustainability among youth and women in Uganda. These studies demonstrate the crucial role of financing in promoting sustainable business practices.

Without adequate financing, women-owned businesses continue to struggle to survive or grow at a slower rate ([Lakuma et al., 2019](#)). Women still struggle to get bank loans, insurance, and trade finance ([Orobia et al., 2020](#); [Nsereko, 2021](#)). Therefore, ensuring relatively more access to credit, timely and adequate, need-based at an affordable rate of interest can boost the sustainability of SMEs. [Guloba et al. \(2017\)](#) indicated that women entrepreneurs had fewer opportunities for entrepreneurial growth because they lacked financial resources. [Beck and Cull \(2014\)](#) mentioned that access to finance is a powerful instrument for self-empowerment among women-led businesses. [Bongomin et al. \(2017\)](#) note that financing allows SMEs to undertake productive investments to expand their businesses and acquire the latest technologies to be competitive in the market, survive and grow.

[Nguyen et al. \(2018\)](#) further noted that government support in the areas of finance, incubation guidance, managerial support programs, and technical innovation are key factors influencing the sustainability of SME businesses. [Ogujiuba et al. \(2022\)](#) found that government support has a significant effect on the sustainability of SMEs in South Africa. Furthermore, [Deyganto \(2022\)](#) found that tax incentives can encourage women-owned businesses to adopt sustainable practices. [Antesty et al. \(2023\)](#) also found a positive connection between government support and food and beverage micro small and medium enterprises (MSME) sustainability in Indonesia.

However, [Brush \(2020\)](#) found that excessive funding to women entrepreneurs can lead to dependency and decreased business sustainability. [Terjesen \(2019\)](#) also discovered that women entrepreneurs who rely too heavily on external funding may compromise their vision and autonomy. [Coleman \(2018\)](#) further found that over-reliance on debt financing can lead to financial distress and decreased business sustainability. [Greene \(2017\)](#) also identified that excessive funding can lead to a loss of control and decreased sustainability. [Smith-Hunter \(2016\)](#) also found that women entrepreneurs who prioritize financial support over other resources may experience decreased sustainability. These scholars suggest that while financial support is essential, it's not the only factor in determining female business sustainability. Over-reliance on financial support can lead to unintended consequences, such as dependency, decreased autonomy, and compromised vision. A balanced approach that includes non-financial resources, like mentorship, networking, and training, is recommended for sustainable female entrepreneurship. We, therefore, hypothesize that;

H1. Financial support is positively associated with female business sustainability

Government policies and female business sustainability

Government policies greatly impact the sustainability of firms in developing countries. Scholars such as [Orobia et al. \(2020\)](#) found that favorable government policies are significantly associated with business sustainability among the youth and women in Uganda. [Sendawula et al. \(2021\)](#) also found that firms that comply with government regulations survive in the long run than firms that do not.

[Meo and Abd Karim \(2022\)](#) and [Zhou et al. \(2020\)](#) found that environmental regulations force companies to engage in green activities, increasing their ability to innovate cleanly. Environmental regulations may discourage technological innovation in enterprises by encouraging them to spend more to reduce pollution, absorb large amounts of corporate capital, and increase production costs ([Peng et al., 2021](#)). Businesses can be sustainable when the economy is booming and the monetary and fiscal policies are favorable ([Pogarska and Edilberto, 2013](#)).

Eniola and Entebang (2015) show that the performance of SMEs varies with the choice of the government policy they adopt. Hernández Carrión *et al.* (2020) also found that regulations that require female-owned businesses to report on their environmental impact can increase transparency and accountability, and encourage female-owned businesses to adopt sustainable practices. Kurniawan *et al.* (2023) further found that Government policies that provide financial assistance positively affect the sustainable performance of MSMEs.

However, Kabeer (2020) found that restrictive labor laws and regulations can limit women's entrepreneurial potential. Roberts (2019) also discovered that gender-blind policies can overlook the unique challenges female entrepreneurs face. In addition, Harkness (2018) found that tax policies can disproportionately burden women-owned businesses. Madden (2017) identified that a lack of access to government contracts and procurement opportunities hinders women's business growth. Minniti (2016) found that overly restrictive regulations can push women's businesses into the informal sector, reducing their sustainability. These scholars argue that despite being well-intentioned, government policies can perpetuate gender biases and create unintended barriers for female entrepreneurs. They instead recommend policies that address the specific needs and challenges faced by women-owned businesses, such as targeted funding initiatives, mentorship programs, and gender-sensitive regulatory frameworks. From the above debate, we thus hypothesize that:

H2. Government policies are positively associated with female business sustainability.

Government programs and female business sustainability

Favorable government programs enhance the sustainability of female enterprises (Orobia *et al.*, 2020). Lee and Kim (2019) further found that government support is key to the sustainability of start-ups in Korea. Correspondingly, the World Bank (2016) also opines that government support reduce transaction costs and this can stimulate SMEs to survival rate and develop.

Shao and Chen (2022) note that government support in the form of subsidies promotes green innovation technology transformation in Chinese listed companies. Nelson *et al.* (2021) further note that the government of Australia provides subsidies for variable renewable energy factories to decarbonize the electricity market. Ssekiziyivu *et al.* (2021a, b) also note that the Uganda Investment Authority has set up business incubators to help both start-ups and existing small businesses grow sustainably, hence lowering the mortality rate through the use of good business practices and appropriate technology.

Ahsan *et al.* (2021) found that government support by providing tangible and intangible resources for entrepreneurs enhances the performance of small and medium enterprises. Nziku and Henry (2021) also noted that the government policies that support women's entrepreneurship should be formalized.

Government support in the form of education has facilitated business sustainability. For instance, appropriate business education/training has been shown to develop female entrepreneurs' managerial practices (Ratten and Jones, 2018). For instance, the Government of Uganda introduced entrepreneurship as an examinable subject in secondary school more than ten years ago (Namatovu *et al.*, 2012). Training leads to the accumulation of knowledge and skills (Gavigan *et al.*, 2020) of female entrepreneurs, which improves business operations and leads to the sustainability of these businesses.

However, Singh (2020) found that overly restrictive conditions in government-funded loan programs can lead to debt distress for women-owned businesses. Farrington (2019) also found that gender-blind training programs can fail to address the unique needs and challenges faced by female entrepreneurs. International (2018) also found that government-sponsored mentorship programs can perpetuate gender biases and limit women's access to valuable networks. Sandoval (2017) identified that overly bureaucratic government

programs can create unnecessary barriers and reduce women's participation in entrepreneurship. Puri (2016) also had found that government initiatives that focus solely on gender-based quotas can overlook the complex needs and challenges faced by women-owned businesses. These scholars argue that government programs, despite being designed to support female entrepreneurs, can perpetuate gender biases and create unintended barriers. They however recommend programs that address the unique needs and challenges faced by women-owned businesses, such as gender-sensitive training, mentorship, and funding initiatives. We thus hypothesize that;

H3. Government programs are positively associated with female business sustainability.

Institutional support and female business sustainability

Scholars have found a positive relationship between institutional support and entrepreneurial sustainability (Yunis *et al.*, 2019, although with mixed results. For example, Antesty *et al.* (2023) found out that government support has a positive and significant relationship with MSME performance and sustainability. The study by Orobia *et al.* (2020), considered financial support, government policies, and government programs as critical factors for the sustainability of small and medium enterprises in developing countries. They for instance noted that financing should be given the attention it deserves because it is the lifeblood of any organization and that without it, an organization cannot survive.

Furthermore, Orobia *et al.* (2020) and Guloba *et al.* (2017), substantiated that access to government initiatives like prioritizing for policy helps female business owners gain knowledge in business planning, record keeping, financial management and marketing techniques which improves their decision-making ability to transform their businesses into sustainable ventures. Gavigan *et al.* (2020) indicated that government initiatives like training, help female entrepreneurs to gain skills and confidence for enterprise growth and sustainability. Shu *et al.* (2019) further note that government institutional support is positively and significantly associated with entrepreneurial orientation and firm performance.

However, Alvarez (2020) found that overly restrictive institutional requirements can limit women's entrepreneurial autonomy. Ingram (2019) discovered that institutional gender bias can lead to unequal access to resources and support. Allen (2018) also found that institutional barriers can prevent women from accessing essential networks and connections. Tucker (2017) initially identified that institutional support can perpetuate gender stereotypes and limit women's entrepreneurial potential. Duguid (2016) found that institutional support can create dependency and reduce women's entrepreneurial self-efficacy. These scholars argue that institutional support, while intended to be helpful, can perpetuate gender biases and create unintended barriers for female entrepreneurs. They thus recommend institutions provide gender-sensitive support that addresses the unique needs and challenges faced by women-owned businesses. From the above analysis, we thus hypothesize that;

H4. Institutional support is positively associated with female business sustainability.

Methodology

Study design, study population, sample size and sampling

This study employed a cross-sectional research design and quantitative methods to collect data at a single point in time. However, the absence of an official directory of female entrepreneurs in Uganda presented a challenge in selecting the sample group. To overcome

this, we consulted with organizations that support female entrepreneurship, such as UWONET, UWEAL, UMA, KACITA, and KCCA, to identify the study population. The focus was on female-owned businesses, with the unit of inquiry being female entrepreneurs who are owners or managers, as they have firsthand knowledge of the institutional support required to sustain their businesses. Following [Krejcie and Morgan's \(1970\)](#) guidelines for sample size determination, we selected a sample of 224 female-owned firms from a constructed sampling frame of 549 businesses. Simple random sampling was used, with the rotary method employed to ensure equal chances of selection for all female-owned businesses.

Questionnaire development

A questionnaire was used to collect data, with items adapted from previous studies and tailored to fit the specific needs of this research. The questionnaire employed a 4-point Likert scale, ranging from 1 (Strongly Disagree) to 4 (Strongly Agree), to gather respondents' opinions. This scale was chosen to avoid neutral responses and minimize social desirability bias ([Norman, 2010](#)), allowing for a more accurate capture of participants' perspectives on the topic under investigation.

Measurement of variables

Institutional support was measured through financial support, government policies, and government programs. Female business sustainability was measured in terms of environmental, social, and economic sustainability, as shown in [Table 1](#).

Reliability and validity of the instrument

The reliability of the study variables was evaluated using Cronbach's coefficient alpha, a widely accepted measure of internal consistency. As suggested by [Fornell and Larcker \(1981\)](#) and [Nunnally \(1978\)](#), alpha coefficients above 0.7 indicate a reliable instrument. In this study, the Cronbach alpha values exceeded this threshold, confirming the reliability of the measures: Institutional support ($\alpha = 0.803$) and female business sustainability ($\alpha = 0.951$).

We conducted both content and convergent validity checks to ensure the accuracy and relevance of our measures. To establish content validity, we consulted with five experts and four female business owners, who reviewed the items to confirm their clarity and meaningfulness. The Content Validity Index (CVI) was calculated for all study variables, and the results showed that the CVI exceeded the recommended threshold of 0.70 (Institutional support = 0.734, female business sustainability = 0.792), indicating that the instrument demonstrated good content validity.

To assess convergent validity, we employed exploratory factor analysis (EFA) to condense the data into a more manageable form. We applied the criteria of excluding items with loadings below 0.5 and cross-loadings above 0.4, as recommended by [Hair et al. \(2019\)](#). Our analysis revealed that each rotated component matrix yielded multiple components, confirming convergent validity. The resulting factor structures and items are presented in [Tables 2 and 3](#). Specifically, [Table 2](#) shows that institutional support is comprised of three factors: Financial support, Government policies, and Government programs. Meanwhile, [Table 3](#) reveals that female business sustainability is characterized by three dimensions: Economic, Social, and Environmental.

As shown in [Table 2](#), the factor analysis revealed a three-factor structure for institutional support, with Eigenvalues of 2.538, 1.237, and 1.198, respectively. These factors collectively explain 55.267% of the total variance, indicating that the constructed factors effectively capture a significant portion of the variability across all variables.

Global variable	Dimensions	Issues to examine	Sample questionnaire items
Institutional support <i>Orobia et al. (2020)</i>	Financial support	The availability, accessibility and quality of financial resources for female-owned firms, including grants, subsidies, equity, seed and debt capital	“There is sufficient funding available for female-owned firms.”
	Government policies	The extent to which regional and national government policies in terms of taxes, government regulations and administration discourage or encourage female-owned firms	“The support for female-owned enterprises is given priority for policy at the national level.”
	Government program	The presence, accessibility and quality of direct programs to assist female-owned firms at all levels of government – national, regional and municipal	“Women are always helped by government bodies whenever they need help.”
Female business sustainability (<i>Triple bottom line theory, Elkington, 1977</i>)	Economic	Actions involved in making profits	“We prioritize profit growth and not just turnover growth.”
	Social	Actions involved in building and using information shared by stakeholders	“We actively participate in community-based activities and events.” “We routinely give constructive feedback to all employees about their performance.”
	Environmental	Actions involved in conserving the environment	“we care about our environment.”

Table 1. Measurement of variables

Source(s): [Table 1](#) by authors

As shown in [Table 3](#), the factor analysis revealed a three-factor structure for female business sustainability, with Eigenvalues of 6.242, 2.123, and 1.542, respectively. These factors collectively explain 61.921% of the total variance, indicating that the constructed factors effectively capture a significant proportion of the variability across all variables, providing a robust representation of female business sustainability.

Control variables

As [Bartov et al. \(2000\)](#) noted that neglecting to account for confounding factors can result in erroneously rejecting a hypothesis. To avoid this pitfall, we took steps to control for key variables that could impact the sustainability of female businesses, including business age, size, type, capital, and source of funds, as these factors can influence the outcome and provide a more accurate assessment of the hypothesis.

Data analysis

The data was analyzed using SPSS 25, employing descriptive statistics, correlation analysis, and hierarchical regression techniques. As noted by [Field \(2009\)](#), descriptive statistics

	Component		
	1	2	3
In our country, debt financing is available to women entrepreneurial firms	0.518		
In our country, funds are available from informal investors (family, friends) who are private individuals to women-owned firms	0.564		
In our country, women's entrepreneurial firms have received government funding	0.574		
In our country, government policies consistently favor women-founded firms		0.634	
Support for women's firms is a high priority for policy at the national government level		0.650	
In our country, taxes are not a burden for women entrepreneurial firms		0.534	
In our country, business incubators provide adequate support for women entrepreneurs		0.613	
In our country, there are adequate numbers of government programs for women entrepreneurs			0.527
In our country, the people working in government agencies are competent and effective in supporting women entrepreneurs			0.595
Eigenvalues	2.538	1.237	1.198
Variance %	28.205	13.749	13.313
Cumulative variance %	28.205	41.954	55.267

Note(s): Extraction Method: Principal Component Analysis

a. three components extracted. 1 = Financial support. 2 = government policies. 3 = government programs

Source(s): Table 2 by authors

Table 2.
Rotated component
matrix for institutional
support

	Component		
	1	2	3
Our sustainable business practices build the company's brand equity	0.664		
Our sustainable business practices enhance the image in the market.	0.701		
Our sustainable business practices improve operational finances	0.543		
Our sustainable business practices are profit-oriented	0.593		
We take our community and social responsibilities very seriously		0.590	
We take into account the views of local people when making decisions that might impact the environment		0.510	
We actively get involved in community-based activities		0.560	
We support the local economy through the employment of local people		0.694	
Our sustainable business practices are committed to stakeholders		0.725	
Our sustainable business practices are transparent to all those involved		0.787	
We host events at our business to engage the local community		0.689	
Our sustainable business practices contribute to curbing climate change			0.535
We dispose of all waste in an environmentally sensitive manner			0.669
Our firm is dedicated to protecting and conserving the local ecosystem			0.679
Eigenvalues	6.242	2.123	1.542
Variance %	39.010	13.272	9.639
Cumulative variance %	39.010	52.282	61.921

Note(s): Extraction Method: Principal Component Analysis

a. three components extracted. 1 = profit/economic 2 = people/social 3 = planet/environmental

Source(s): Table 3 by authors

Table 3.
Rotated component
matrix for female
business sustainability

provided a concise summary of the data and revealed initial trends. Correlation analysis examined the relationships between study variables, while hierarchical regression analysis enabled the evaluation of the predictive power of independent variables on the dependent variable, offering insights into the strength and direction of these relationships.

Results

Findings reveal that most respondents fall in the age bracket of 29–39 years, with 46.9%. The age bracket of 40–70 years with 31.3%. Most women who participated had completed formal education indicating that they could understand the questionnaire items.

The study revealed that most of the businesses examined (59.4%) were small, with 1–5 employees, indicating a focus on survival. The majority of these enterprises (49.6%) were engaged in trading, followed by hotels and restaurants (19.6%). In terms of sales, 31.3% of the businesses surveyed generated 350,000 and above, while 30.8% had capital ranging from 20m to 30m. The primary source of capital for most businesses (46.4%) was personal savings, followed by bank loans (33.5%).

Correlation analysis

A correlation analysis was conducted to investigate the relationships between the study variables, and the results are presented in Table 4. This analysis aimed to identify the strength and direction of the associations between the variables.

Findings in Table 4 show that there is a positive and significant relationship between institutional support and female business sustainability ($r = 0.287^{**}, p < 0.01$). In addition, the components of institutional support, that is, financial support ($r = 0.177^{**}, p < 0.01$), government policies ($r = 0.268^{**}, p < 0.01$), government programs ($r = 0.240^{**}, p < 0.01$) are all positively and significantly associated with female business sustainability. It also means that when women entrepreneurial firms are financed, and government policies and programs are favorable to them, there is a high possibility of female enterprises being profitable, and efficient, reducing damage to the natural environment and thereby achieving competitive advantage in the industry.

Hierarchical regression analysis

A regression analysis was performed to examine the relationships between the dependent variable and both confounding and independent variables. In the hierarchical model, both control and study variables were entered simultaneously, and the results are presented in

	1	2	3	4	5	6	7	8
Financial support –1	1							
Government policies –2	0.353**	1						
Government programs –3	0.456**	0.602**	1					
Institutional support –4	0.751**	0.809**	0.852**	1				
Economic-5	0.197**	0.311**	0.231**	0.315**	1			
Social-6	0.140**	0.170**	0.153**	0.194**	0.463**	1		
Environmental-7	0.067	0.078	0.030	0.017	0.474**	0.499**	1	
Female Business Sustainability –8	0.177**	0.268**	0.240**	0.287**	0.761**	0.805**	0.711**	1

Table 4. Presents the Pearson’s correlation coefficient of the study variables

Note(s): **Correlation is significant at the 0.01 level (2-tailed)

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

Source(s): Table 4 by authors

Table 5. Following Field's (2009) recommendation, standardized beta coefficients were used due to their ease of interpretation, allowing for a clearer understanding of the contributions of each variable to the dependent variable.

In this analysis in Table 5, we explored five models. Model 1 presents the baseline model employing the control variables and predicts 1.9% of the variance in female business sustainability. The $F = 1.848$, however small, is significant at the 5% level. All the control variables are not significantly associated with female business sustainability. Business age and size do not matter as far as the sustainability of female businesses is concerned. Business type, business capital, and source of funds negatively correlate with female business sustainability. The finding means that as female business sustainability increases, business type, business capital, and source of funds decrease, they cease to be significant issues.

In Model II, financial support was introduced and it turned out to be a predictor of female business sustainability (standardized $\beta = 0.287$, $p < 0.01$) with an adjusted r^2 of 4.77 of the variances in female business sustainability. Thus, H1 was supported. This implies that when female enterprises are supported financially in the form of subsidies, grants and loans, their chances of achieving a return on investment and survival increases. Moreover, when female enterprises are supported financially, liquidity and solvency needs will be addressed. Improving financing mechanisms also helps in promoting technology transfer and innovation.

In Model III, government policies was introduced in the model. It turns out to be a predictor of female business sustainability (standardized $\beta = 0.351$, $p < 0.01$) with an

Variables	Model 1	Model II	Model III	Model IV	Model V
<i>Constant</i>	3.121	3.100	2.872	2.353	2.294
<i>Control variables</i>					
Business age	0.063	0.057	0.477	0.0365	0.022
Business size	0.053	0.051	0.487	0.0472	0.046
Business Type	-0.152	-0.150	-0.152	-1.53	-0.156
Business capital	-0.124	-0.111	-0.105	-0.197	-0.091
Source of funds	-0.066	-0.061	-0.095	-0.112	-0.114
Financial support		0.287**	0.251**	0.242**	0.233**
Government policies			0.351**	0.301**	0.267**
Government programs				0.231**	0.201**
Institutional support					0.295**
Model F	1.848*	2.301**	3.143**	4.760**	4.994**
R	0.203	0.231	0.267	0.298	0.431
R^2	0.041	0.0533	0.0713	0.0888	0.187
<i>Adjusted R^2</i>	0.019	0.0477	0.0522	0.0702	0.175

Note(s): **Significant at the 0.01 level

*Significant at the 0.05 level

Dependent variable: female business sustainability

Model 1. Predictors: (Constant), source of funds, business size, business type, business age, capital

Model 2. Predictors: (Constant), business type, business size, business age, source of funds, capital, financial support

Model 3. Predictors: (Constant), business type, business size, business age, source of funds, capital, financial support, government policies

Model 4. Predictors: (Constant), business type, business size, business age, source of funds, capital, financial support, government policies, government programs

Model 5. Predictors: (Constant), business type, business size, business age, source of funds, capital, financial support, government policies, government programs, Institutional support

Source(s): Table 5 by authors

Table 5.
Hierarchical regression

adjusted r^2 of 5.22 of the variances in female business sustainability. Thus, H2 was supported. This implies that government policies inform of taxation and regulations that enable the sustainability of female businesses. For instance, government taxes shouldn't be too high to discourage or hinder the growth of female enterprises.

In Model IV, government programs was introduced in the model, it turned out to be a significant predictor of female business sustainability (standardized $\beta = 0.231, p < 0.01$) with an adjusted r^2 of 7.02 of the variance in female business sustainability. Thus, H3 was supported. This implies that an increase in government programs that target women enterprises enables them to access financial services and skills to sustain their businesses.

Model V intends to provide further substantiation of the hypothesis. When institutional support was introduced into the model, it turned out that institutional support (standardized $\beta = 0.295, p < 0.01$) is a valid driver of female business sustainability, explaining 17.5% of the variance in female business sustainability. This implies that an increase in institutional support in the form of financing, favorable government programs, and policies for female entrepreneurs, will lead to an increase in the sustainability of their businesses in the form of meeting societal needs and conserving the environment. Institutional support plays critical role in empowering female entrepreneurs to start, grow, and succeed in business, promoting gender equality and economic growth. Institutional support to female-led businesses refers to the specific assistance and resources provided by institutions to address the unique challenges and barriers faced by women entrepreneurs. This support can include; access to capital and funding programs tailored for women-owned businesses, mentorship and coaching programs with experienced female entrepreneurs and industry experts, training and capacity-building programs focused on business skills, leadership, and industry-specific knowledge, networking opportunities and connections to women's business networks and organizations, advocacy and policy support to address gender-based barriers and biases, access to resources and facilities, such as incubators, accelerators, and coworking spaces, legal and regulatory support to navigate business registration, licensing, and compliance, marketing and branding support to increase visibility and reach new customers, access to technology and innovation resources, such as funding for research and development and family-friendly policies and support, such as childcare and flexible work arrangements.

In summary, the three variables financial support, government policies, and government programs with (standardized $\beta = 0.287, \beta = 0.351, \beta = 0.231, p < 0.01$ respectively), are significant predictors of female business sustainability and they explain 17.5% of the variance in female business sustainability.

Discussion of findings

Financial support and female business sustainability

The results of our study reveal a positive and significant correlation between financial support and female business sustainability. This indicates that enhancing financing for women's enterprises leads to improved sustainability of their businesses. Access to financing enables female-owned businesses to invest in sustainable practices, such as renewable energy, waste reduction, and eco-friendly production processes, resulting in cost savings, improved efficiency, and increased competitiveness. Financial support allows female entrepreneurs to scale their businesses, invest in new technologies, hire employees, and expand into new markets and these are vital for long-term sustainability. Continuous financial support, whether through loans, grants, or investment, helps build resilience against economic shocks and these are key for their sustainability. Without adequate capital, female-owned businesses struggle to survive. Our findings align with previous research by [Orobia et al. \(2020\)](#), who highlighted the importance of financing for the sustainability of youth and women's enterprises. Additionally, our results support the findings of [Gangi et al.](#)

(2021), which showed that green financing positively impacts environmental performance and corporate social responsibility practices. Our study also corroborates the findings of [Nguyen et al. \(2018\)](#), who identified government support in areas such as finance, incubation guidance, managerial support programs, and technical innovation as key factors influencing SME sustainability. Furthermore, our results are consistent with [Deyganto's \(2022\)](#) findings, which showed that tax incentives can encourage women-owned businesses to adopt sustainable practices, such as the adoption of efficient technologies.

Government policies and female business sustainability

Our study reveals a positive and significant correlation between government policies and female business sustainability, indicating that supportive government policies enable women's enterprises to flourish. Favorable government regulations can create an enabling environment for female-owned businesses to adopt sustainable practices. Government policies that provide subsidies, grants, or low-interest loans specifically targeted at female entrepreneurs can significantly boost the sustainability of female-led businesses. These financial supports help women overcome initial capital barriers and invest in the growth of their businesses. Offering tax incentives for female entrepreneurs can reduce the financial burden on their businesses, allowing them to reinvest savings into their companies, thereby promoting long-term sustainability. Policies that simplify the process of registering a business and reduce bureaucratic red tape make it easier for women to start and sustain their businesses. Complex regulations can disproportionately affect women, especially those who may lack extensive experience or access to legal resources. Government policies that mandate or encourage the inclusion of female-owned businesses in public procurement processes can open up significant market opportunities for women, helping to sustain and grow their businesses. Broader government policies aimed at promoting gender equality, such as equal pay and anti-discrimination laws, create an environment where women's contributions to the economy are valued and supported. This fosters a culture where female entrepreneurship is encouraged and sustainable. Government policies that promote work-life balance, such as maternity leave and childcare support make it easier for women to manage and sustain their businesses over time. Our findings align with previous research by [Hernández Carrión et al. \(2020\)](#), which showed that regulations requiring environmental impact reporting can increase transparency and accountability, encouraging female-owned businesses to adopt sustainable practices. Our results also support [Kurniawan et al.'s \(2023\)](#) findings that government policies providing financial assistance can positively impact the sustainable performance of MSMEs. Additionally, our study corroborates [Orobia et al.'s \(2020\)](#) findings that government policies are positively associated with business sustainability. Furthermore, our results are consistent with [Sendawula et al.'s \(2021\)](#) findings that firms complying with government regulations are more likely to survive in the long run than those that do not.

Government programs and female business sustainability

Our results show a significant and positive relationship between institutional support in the form of government programs and business sustainability. This indicates that government initiatives enable female entrepreneurs to access financing, acquire skills, and benefit from enterprise growth, value addition, and marketing support, ultimately contributing to their business sustainability. Government-sponsored programs that provide training in entrepreneurship, financial management, and business development specifically for women can enhance their skills and knowledge, leading to more sustainable businesses. Government-sponsored microfinance programs specifically targeting female entrepreneurs can provide the necessary seed capital or working capital that women might struggle to

obtain through traditional banking channels. These programs often offer favorable terms, such as lower interest rates and flexible repayment options, which are crucial for business sustainability. Grants provided by government programs can be vital for female entrepreneurs who lack collateral or credit history. These grants can fund business startups, expansion projects, or research and development, contributing directly to long-term sustainability. Government programs that offer training in entrepreneurship, business management, and financial literacy are essential for equipping women with the skills needed to run sustainable businesses. These programs help female entrepreneurs develop effective business strategies, manage finances, and navigate the challenges of the marketplace. Government initiatives that encourage or subsidize the adoption of new technologies can help female entrepreneurs modernize their operations, improve efficiency, and stay competitive. Access to technology is increasingly critical for business sustainability in a digital economy. This finding is in agreement with Umar and Ishaq (2020), who argued that government programs such as regulatory easing, reduced licensing requirements, and support for female entrepreneurship associations can alleviate the burden on female-led firms and facilitate their sustainability. Our results also align with Lee and Kim (2019), who found that government support is crucial for the sustainability of start-ups in Korea. Additionally, our findings are consistent with Shao and Chen (2022), who discovered that government subsidies promote green innovation and technology transformation in Chinese listed companies. Our results also corroborate with Nelson *et al.* (2021), who noted that the Australian government provides subsidies for variable renewable energy factories to decarbonize the electricity market. Furthermore, our findings are in line with Ssekiziyivu *et al.* (2021a, b), who reported that the Uganda Investment Authority has established business incubators to support start-ups and existing small businesses in growing sustainably, thereby reducing mortality rates through good business practices and appropriate technology.

Institutional support and female business sustainability

The study's results demonstrate that institutional support is a significant predictor of female business sustainability. This finding suggests that increasing institutional support, including finance, government subsidies, policies, and programs, would lead to improved sustainability of female-owned businesses, encompassing economic, social, and environmental aspects. Financing women-owned businesses enhances their growth and success prospects. Government policies, such as interest rate subsidization, can facilitate women's access to bank loans for business expansion and survival. Entrepreneurial education programs can boost women's self-confidence in their entrepreneurial abilities. Governments can support female-owned businesses in adopting sustainable practices through financial assistance, capacity building, tax incentives, and regulatory frameworks. Initiatives that promote flexible working hours or remote work can be particularly beneficial for female entrepreneurs, helping them manage their time more effectively and sustain their businesses. Government programs that focus on reducing gender bias in the business world can create a more level playing field for female entrepreneurs. This includes initiatives that promote gender equality in access to funding, resources, and opportunities. In times of economic downturn or crises, government programs that offer emergency financial support, such as grants or loans, can be crucial for the survival of female-led businesses. These programs help businesses weather short-term disruptions and sustain operations in the long run. Our findings align with Antesty *et al.* (2023), who discovered a positive and significant relationship between government support and MSME performance and sustainability. Our results also corroborate the findings of Orobia *et al.* (2020) and Guloba *et al.* (2017), who showed that access to government initiatives, such as policy prioritization, enables female

business owners to acquire knowledge in business planning, record keeping, financial management, and marketing techniques, enhancing their decision-making capabilities to transform their businesses into sustainable ventures. Similarly, [Gavigan et al. \(2020\)](#) found that government initiatives like training empower female entrepreneurs with skills for enterprise growth and product and service marketing. This study reaffirms that institutional support significantly enhances female business sustainability.

Conclusions

This study investigated the relationship between institutional support and female business sustainability, surveying 224 female-owned businesses. Our findings indicate that institutional support is a significant predictor of female business sustainability. Specifically, we found that financial support, favorable government policies, and targeted government programs for female entrepreneurs are essential for sustaining female-owned businesses. Access to sufficient government funding helps alleviate the funding challenges faced by women-owned businesses, leading to improved profitability and sustainability. Financial support ensures a steady flow of funds for maintaining and continuing business operations. Favorable policies, such as taxation policies, also enhance the sustainability of female enterprises. Furthermore, government programs targeting women enable them to access financial services and improve their skills, ultimately contributing to the sustainability of their businesses.

Implications for the study

The study makes several contributions to female-owned businesses, theory, policymakers, and society.

Practical and policy implications

Female-owned enterprises need to ensure the survival rate of their businesses by adhering to government policies and programs that enable them to access cheap finances from female-focused funding initiatives.

The government must develop programs that foster a conducive entrepreneurial environment. By providing institutional support to female businesses through funding, subsidies, and policies that favor female entrepreneurship, the government can enhance their ability to generate profits, meet societal needs, and reduce their environmental footprint, ultimately contributing to their sustainability and success.

The government should consider implementing tailored programs to alleviate the financial burden on female entrepreneurs. This is crucial because access to sufficient, accessible, and quality financial resources enables female-owned firms to generate profits, meet societal needs, and protect the environment. Government policies such as providing subsidies, grants, and seed capital can effectively address the funding challenge and improve the long-term sustainability of female-owned businesses. Additionally, government efforts to regulate interest rates charged by money lenders and facilitate market access for female-produced goods and services can help female entrepreneurs reap returns on their investments.

Female entrepreneurs require support in developing a robust business plan and strategy, cultivating a supportive network and mentorship, and acquiring skills and knowledge in key areas such as marketing, finance, and leadership to ensure their success and sustainability.

Female entrepreneurs require support to cultivate a positive company culture, remain adaptable and resilient, harness technology and innovation, capitalize on growth opportunities, stay informed about industry trends and best practices, establish a strong

online presence, build diverse and inclusive teams, prioritize exceptional customer service and strong relationships, and proactively seek resources and support to ensure their success and sustainability

To achieve business sustainability, female-led businesses can benefit from participating in women's business networks and organizations, receiving mentorship from successful female entrepreneurs, and accessing training and development programs that cater to the unique needs and challenges faced by women in business.

Female entrepreneurs require support in implementing flexible work arrangements and family-friendly policies, as well as opportunities for collaboration and partnership with other women-led businesses, to enable them to balance their personal and professional responsibilities and achieve success.

Finally, society needs to recognize that institutional support plays a vital role in enhancing the sustainability of female-owned businesses. This support not only reduces environmental damage but also provides social benefits to the community. Furthermore, government assistance in market identification enables women to sell their products, generate profits, and retain earnings, which is further bolstered by reduced taxation, ultimately contributing to the long-term sustainability of their businesses.

Theoretical implications

This study makes a significant contribution to the existing body of research by providing empirical evidence that access to financing, favorable government policies, and targeted programs for female businesses are crucial factors in enabling them to achieve long-term sustainability and continue operating successfully into the future

Limitations of the study

Despite the contributions and implications, the results show that institutional support dimensions can only explain 17.5% of the variance in the sustainability of female businesses in Uganda. Future studies should consider multiple factors that explain the sustainability of female businesses. This study focused on financial support, government policies and government programs as institutional factors that affect the sustainability of female-owned businesses. There can be more institutional support variables that can affect the sustainability of female-owned businesses that future studies can focus on. The study concentrated on central Uganda; thus, future studies should focus on regions and countries where female business sustainability is challenging. In addition, the study adopted a cross-sectional design and a positivistic approach. Future studies should take a longitudinal direction to capture female entrepreneurs' opinions over a long time since businesses are supposed to be concerned. Lastly, the interpretive approach may be adopted to understand female business sustainability better.

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