

# Women entrepreneurship development and sustainable rural livelihoods in Zimbabwe

Sustainable  
rural  
livelihoods in  
Zimbabwe

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## Abstract

**Purpose** – The main purpose of this research is to investigate factors influencing rural women entrepreneurship development and sustainable rural livelihoods in Manicaland province of Zimbabwe.

**Design/methodology/approach** – A quantitative research was conducted in Manicaland province in Zimbabwe. Data were collected through structured questionnaires from 400 women entrepreneurs in various sectors. The participants were in vegetable vending, operating clothing flea markets and cross border trading. A self-administered structured questionnaire was used to collect data from respondents. Structural equation modeling in SmartPLS version 3 was used to test the research hypotheses.

**Findings** – The study established that women entrepreneurship is driven by financial factors, positive environmental factors, positive psychological factors as well as positive sociological factors for a sustainable rural livelihood.

**Research limitations/implications** – It is clear that if the discovered challenges are not addressed, sustainability of women entrepreneurship will remain a dream.

**Practical implications** – The study came up with strategies for improving women entrepreneurship activities. Future research can be done in other areas of provinces to avoid generalization challenges.

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**Social implications** – Many challenges hinder the sustainability of women entrepreneurship. Major impediments to women entrepreneurship comprises inadequate support from government schemes, patriarchal societal structure of the community, lack of relevant entrepreneurial knowledge to manage businesses, lack of collateral security to access funding, time limitation or role conflict to balance family pressures and business.

**Originality/value** – The study recommends proper entrepreneurship education and training, supportive government schemes and access to network affiliation/connection to sustain women entrepreneurship.

**Keywords** Women entrepreneurship, Women entrepreneurs, Sustainable rural livelihoods

**Paper type** Research paper

## Introduction and contextualization

Woman entrepreneurship is a self-possessed, inventive and inventive women skilled of attaining economic freedom independently or in co-operation, creates work opportunities for others through originating and operating a business by keeping pace with their family, social and personal life (Shadrack & Warsanga, 2020; Tabares, Londoño-Pineda, Cano, & Gómez-Montoya, 2022). Deshpande and Sethi (2009) defined women entrepreneurship is a process of boosting an idea into business venture and corporate possession that allow women economically by increasing their economic rights and position in society. Shaila (2012) suggested that women entrepreneurship comprises identifying opportunity, gather resource adequate to start and grow an entrepreneurial venture (Hundera, 2019). However, the impact of women entrepreneurship has not been realized especially by the emerging countries like Zimbabwe, although there is great appreciation of diversity and equality (Nyagadza, Gwiza & Hove, 2022). Rather poverty and unemployment are the two major challenges in the present world economy, with 80% of the extreme poor living in rural areas (Campos, Villani, Davis, & Takagi, 2018). Globally, most of the poorest individuals in rural areas are females (Suttie *et al.*, 2018; Okeke-Uzodike, 2019; Kabonga, Zvokumba, Nyagadza & Dube, 2021). It has also been revealed that females have fewer economic rights, and lower access to economic opportunities and resources, including land and credit facilities, causing them to remain economically inactive (Hayford & Kloke-Lesch, 2013). Kelley, Singer, and Herrington (2016) stressed that women would commonly engage in the activities of entrepreneurship less frequently than men, nevertheless when women do so, they normally do it out of a necessity rather than an opportunity. This raises the question of livelihoods and sustenance of the rural folk. Bönte and Piegeler (2013), Verheul, Thurik, Grilo, and Van der Zwan (2012), Croson and Gneezy (2009) and Wagner (2007) concluded that females are both more risk averse and less competitive than men (Cavada, Bobek, & Maček, 2017) and private enterprise is not an easy step for females.

In Africa, women in rural areas have engaged in various activities for survival like garments making, boutiques, utensils coloring, beauty parlors, pickle making, toy making, packaging and others provided more elasticity in their lifestyle (Guta, Jara, Adhikari, Chen, Gaur, & Mirzabaev, 2017; Khupe, Nyathi, & Ruparaganda, 2017). Their forms of livelihoods are believed to have originated from the traditional practice of wives receiving land from their husbands' lineage for agricultural production to feed the family (Kritz & Gurak, 1989). However, women in many African countries practiced entrepreneurship only for poverty alleviation, rather than as an economic choice (Richardson, 2004). The affected women across various sectors are facing many common challenges on sustaining their entrepreneurial ventures especially those in rural areas (Hayford & Kloke-Lesch, 2013).

Although entrepreneurship was traditionally considered as a man's stronghold, women are coming into the limelight to fulfill their aspirations as it is a fruitful opportunity where both the literate and uneducated can do wonders to achieve their dreams (Patil & Deshpande, 2021). It is evidenced in other parts of Africa where women have managed to move from the traditional zone to the working environment for the uplifting of the society and family, and

they are realizing the need for money. For instance, in 2017 the Indonesian Central Statistics Agency stated that women entrepreneurs in Indonesia reached 49.96% of the 242 million population (Mulawarman, Hasan, & Sharif, 2020). Again, according to the Ministry of Cooperatives and Small and Medium Enterprises (SMEs), it was recorded that about 52 million SMEs existed throughout Indonesia and 60% of businesses were run by women (Hendratmi & Sukmaningrum, 2018) in 2015. In addition, the Global Entrepreneurship Monitor (2018–2019) conveyed that Indonesian females had an equivalent or even greater than males in terms of entrepreneurial activity level.

Findings also showed that some women in Tanzania have managed to put behind what was traditionally believed to be women's roles such as cooking, taking care of the children and performing all the other household work, which are unpaid activities (Balele Mgasa, 2014). In Singapore, women are driven by the need of freedom and flexible working hours to balance household responsibilities and work and thus they managed to grab the new initiative of women entrepreneurship (Maysami & Goby, 1999; Kabonga, Zvokumba & Nyagadza, 2021). Family support and internal locus of control promotes the Malaysian female entrepreneurs to stay in this field (Alam Jani, & Omar, 2011). There were nine nations where females were stated to have business behavior at the same or advanced level than men: Angola, Indonesia, Ecuador, Qatar, Kazakhstan, Panama, Madagascar, Vietnam and Thailand (Elam *et al.*, 2019; Mulawarman *et al.*, 2020).

In this regard, it is not shocking that in a contemporary society, many females request entrepreneurship by generating their private business, but they are still put aside and their impact has not been realized. A report by Global Entrepreneurship Monitor (2016/17) shows that Sub-Saharan Africa has the highest rate of women entrepreneurship globally. Within the continent, Senegal is the best performer with 36.8% of women entrepreneurs, while South Africa has the lowest number of women entrepreneurs active in the region at just 5.9% (Shukla, Parray, Siingh Chatwal, Bharti, & Dwivedi, 2018). The report reveals that in countries like Ghana, Nigeria and Zambia, women entrepreneurs outnumber men in entrepreneurship concerns. However, Sub-Saharan Africa is regarded as the continent with the highest rate of discontinuance of women entrepreneurship at 8.4% (Shukla *et al.*, 2018). Women are generally considered second-class citizens because biologically men are stronger than women. Thus they should respect and take orders from their husbands as head of the house, including external spheres outside the house. They face many hurdles in a bid to become independent as the traditional concept of a country is a male dominated one (Agarwal & Lenka, 2018). Thus adequate procedures have to be engaged to encourage females to venture into private enterprise (Kaviarasu *et al.*, 2018).

Despite the fact that women entrepreneurs from other parts of Africa have managed to sustain their livelihoods, Zimbabwean women entrepreneurs are still facing challenges in sustaining their livelihoods. In 2009, the United Nations Statistics Division Eurostat, SEDLAC stated that Zimbabwe is one of the countries with statistics showing 50 to 54% of female headed families with poverty (Takayindisa, Thobejane, Mukwevho, & Nyathi, 2019). Although these statistics were around 2009–10, in 2011 72.3% of the Zimbabwean population was considered poor, whilst households in Zimbabwe deemed poor were 62.6% of the total population (Tawodzera & Chigumira, 2018). Also, Dube and Guveya (2016) highlighted that poverty is more prevalent in rural areas with only 38.2% of urban households considered poor compared to 76% of the rural households. In Zimbabwe, rural women and their young children are the more marginalized group compared to adult men (Zungura & Nyemba, 2013; Zaidi & Munir, 2014; Otto *et al.*, 2017; Mandongwe & Jaravaza, 2020).

Despite the efforts by the government of Zimbabwe in coming up with women interventions (garden or horticulture cooperatives, internal savings and lending scheme, goat and chicken projects amongst others), women remain economically suppressed. Regardless of such efforts, women entrepreneurs are still at a small scale with very few women

expanding their businesses (Mandongwe & Jaravaza, 2020). Hence, it is necessary to focus on the empowerment of women in the rural areas for the development of a country in all spheres. While acknowledging the fact that women entrepreneurship plays a key role, their contribution on the sustainability of their livelihoods is silent. Despite previous studies to address the problem, there is deficient knowledge about the extent to which women entrepreneurship affects sustainable rural livelihoods. Also, Agarwal and Lenka (2018) acknowledge the need for and importance of future research in the area of women entrepreneurship in order to strengthen women entrepreneurship programs and policies. Therefore, the knowledge gap in this area is insufficient understanding of strategies to sustain women entrepreneurship in Zimbabwe. This study intends to contribute to the entrepreneurship body of knowledge by investigating the effect of women entrepreneurship on rural livelihoods of Manicaland province in Zimbabwe. Further to this, the results of the study contributes to theoretical insights by extending the perspectives of the entrepreneurship motivation theory and developing the Sustainable Livelihoods Framework (SLF) assumes that people live within a vulnerability environment made up of shock waves, developments and seasonality.

### **Theory and framework grounding the study**

#### *Entrepreneurship motivation theory*

Mansor (2005) in the entrepreneurship motivation theory postulates that women entrepreneurship is driven by financial, environmental, psychological as well as sociological factors (SOC). The assumption of the theory is that female businesspersons are motivated by a combination of these influences and they drive willingness of women to venture in entrepreneurship (Erenstein, Hellin, & Chandna, 2010).

*Financial factors* (FIN) comprise lack of adequate finance, disincentives of tax systems, inhibiting effects of red tape and regulations, failure in implementation of the policy that discriminate in favor of small firms, deficiency of experience in the financial field and absence of confidence in presenting business plans (Ngorora & Mago, 2013).

*Environmental influences* consist of accessibility of business resources, existence of knowledge of entrepreneurs who are ready teach others, availability of expert workforce, availability of merchants, availability of consumers and novel marketplaces, government encouragements, accessibility of land, availability of conveyance, availability of new technologies, accessibility of supporting services and availability of developmental opportunities in local communities.

*Psychological factors* (PSYC) may include: capability and tendency to take risk of entrepreneurship, internal locus of control, desire for success, reactivity and others (Ndofirepi, 2020).

SOC comprise household influence, role model, role of female in the society and others. Mansor (2005) proposed that the presence of motivational factors propels an entrepreneur to venture into entrepreneurship. The theory informs the research as it comprehends several variables for venture creation. It assimilates the roles of financial, sociological, psychological, environmental factors (ENV) and the individual's competence in encouraging entrepreneurial behavior. The motivational factors are considered as assets needed for the sustainability of livelihoods. The willingness of women to initiate and venture into entrepreneurship is important (Mansor, 2005). The availability of these factors is not enough as women entrepreneurs must be willing to make use of the opportunities available to them within a specific environment and convert them into a venture (Erenstein *et al.*, 2010). Women entrepreneurship is a function of motivational factors and capability. However, Mansor (2005)'s theory did not make clear the extent to which these motivational factors can influence women's willingness to start a business and how much other intervening variables can

inhibit women entrepreneurs from doing so. Thus, the research seeks to measure the extent of influence of these factors. Also, there is disagreement on researchers as some argue that factors influencing women to venture into entrepreneurship differ by regions, provinces and countries. Thus, there is a gap in the [Mansor \(2005\)](#) framework on whether the argument is valid or not.

### *Sustainable Livelihoods Framework (SLF)*

The SLF assumes that people live within a vulnerability environment made up of shock waves, developments and seasonality ([Chitongo, 2019](#); [Kabonga, 2020](#)). The vulnerability environment is determined by converting structures and methods which include levels of government regulations, rules and culture that govern the livelihood strategies ([Tabares et al., 2022](#); [Kabonga, 2020](#)) people use to meet their desired livelihood outcomes such as food security. The concept assumes that individuals move in and out of deficiency and the perception releases the progressions of modification better than insufficiency line dimensions ([Alwang, Siegel, & Jorgensen, 2001](#); [Serrat, 2017](#)).

*Financial capital* defines the set of monetary resources that are required by individuals to meet livelihood goals (income, employment and savings) ([Mehta & Hill, 2001](#); [Campbell et al., 2002](#); [Wiklund & Shepherd, 2005](#); [Kabonga, 2020](#)). Financial capital is a very useful form of capital. For example if the family has money it can afford to do many other things such as sending children to school, buying enough food and even going to a doctor ([Ngorora & Mago, 2013](#); [Maziriri, Nyagadza, & Chuchu, 2022a, b](#)).

*Physical capital* comprises rudimentary infrastructures and possessions vital for encouraging and supporting sustainability of rural livelihoods. These might include infrastructure, marketplace accessibility and transport ([Bebbington, 1999](#); [Department of International Development \[DFID\], 1999](#); [Ahmed, Allison, & Muir, 2008](#); [Stoian, Donovan, Fisk, & Muldoon, 2012](#)).

*Human capital* denotes the knowledge, skills training, education and the ability to work in good health that allows people to pursue livelihood strategies ([Tacoli, 1999](#); [Chapman, Slaymaker, & Young, 2003](#); [Othman et al., 2016](#)).

*Social capital* characterizes the features of a social organization that function to manage actions driven by community, experience and inner drive. These are social resources people draw on in a quest of livelihood objectives consisting of social prestige, cooperation and decision-making power ([Humphrey & Schmitz, 1998](#); [Lyon, 1999](#); [Lyon, Lumpkin, & Dess, 2000](#); [Fafchamps, 2001](#)).

*Natural capital* involves the ordinary resource stocks that are essential inputs for the poor and from which livelihood is usually derived. Natural capital comprises of tangibles and intangible goods, such as air quality, soil quality and lodging for a healthy atmosphere ([Campbell et al., 2002](#); [Chapman et al., 2003](#); [Erenstein et al., 2010](#)). The SLF framework describes conditions which govern an individual's access to possessions and livelihood opportunities which can be converted into sustainable rural livelihood outcomes thus driving individuals out of the deprivation trap of poverty ([Kabonga, 2020](#); [Othman et al., 2016](#)). [Knutsson \(2006\)](#) posited that the sustainable livelihoods outcome consists of five indicators which are more income, increased well-being, reduced vulnerability, improved food security and more sustainable use of natural resources. More income or sufficient income allows people to meet their needs.

### **Literature review**

Generally women entrepreneurship is a catalyst for economic development and an engine that promotes productivity, innovation and employment creation ([Greblikaite, Sroka, & Grants, 2015](#); [Zaki & Rashid, 2016](#)). Some researchers argue that entrepreneurship does not

change but rather, it is the factors and challenges that affect people who practice it differently (Vossenber, 2013). Women entrepreneurship can be defined as a self-possessed, inventive and inventive skilled of attaining economic freedom independently or in co-operation, creates work opportunities for others through originating and operating a business by keeping pace with their family, social and personal life (Shadrack & Warsanga, 2020).

### *Women entrepreneurship*

The Government of India (GOI, 2006) describes women entrepreneurship as an initiative owned and organized by a woman having financial interest of at least 51% of the capital and giving 51% to women (Gupta, 2010; Kaviarasu *et al.*, 2018). From the above definitions, women entrepreneurship can be viewed as any economic activity being done by a woman to earn a living (Miah, Khan, Misto, & Karim, 2018). This study views women entrepreneurship as an economic activity where females or groups of females are involved in handling all the business events (Mashapure *et al.*, 2022). Although women entrepreneurship is a strategy for sustainable livelihoods (Rambe & Mosweunyane, 2017; Rambe & Ndofirepi, 2021), there is a debate among researchers on factors that influence women entrepreneurship. These factors have been given various categories such as FIN, SOCI, PSYC and ENV.

### *Effects of financial factors on women entrepreneurship*

Women entrepreneurs are motivated by the probability to increase the revenue that they use to provide and maintain the family and household goals, cultivating their household values of living and gaining self-sufficiency (Jesurajan & Gnanadhas, 2011; Bullough, De Luque, Abdelzahr, & Heim, 2015; Maziriri *et al.*, 2022a, b). Evidence from the literature suggests that women are mainly motivated by the need for independence, maintenance of household, reduce/ease poverty as well as difficulty in finding appropriate employment (Chelliah & Lee, 2011; Jesurajan & Gnanadhas, 2011; Vossenber, 2013; Bullough *et al.*, 2015; Meyer, 2018). According to Ratten (2011), the desire for individuality, one's fulfillment and need for capital, societal prominence and influence also motivate females into entrepreneurship (Kabonga & Kwashirai, 2021; Kabonga, Kwashirai & Dube, 2021). The absence of chances in the employment marketplace and the desire to increase family income influence women entrepreneurs to engage into entrepreneurship (Amit & Muller, 1995; Sahasranamam & Sud, 2016). Benzing, Chu, and Kara (2009), concurred that income levels and employment opportunities are the driving factors for women entrepreneurship. The findings of the Tanzanian SMEs demonstrated that the larger number of females in emerging nations engage livelihoods because of a shortage of sufficient informative accomplishment and challenge in getting formal employment (Rutashobya, 1995; Toroka & Wenga, 1997; Olomi, 2001; Mfaume & Leonard, 2004; Kuzilwa, 2005; Sospeter, Rwelamila, Nchimbi, & Masou, 2014; Maziriri *et al.*, 2022a, b). Based on the foregoing discussion, it was conceivable to hypothesize that.

H1. FIN positively influences women entrepreneurship.

### *The effect of psychological factors on women entrepreneurship*

According to Kirkwood and Campbell-Hunt (2007), women entrepreneurship motivation can be considered coming from PSYC (Fosić, Kristić, & Trusić, 2017; Maziriri, Nyagadza, Mapuranga, & Maramura, 2022). The psychological construct is considered to be the main factor that enhances the ability of individuals to achieve their goals. For instance, before individuals undertake particular behaviors, they must first intend to do so (Loras & Vizcaino, 2013; Laudano, Zollo, Ciappei, & Zampi, 2019). Therefore, aspiring entrepreneurs must first intend to become self-employed. Upcoming entrepreneurs need to have risk-taking

propensity, which indicates abilities to cope with difficulties and successfully adapt to uncertain and unpredicted circumstances (Yurtkoru, Acar, & Teraman, 2014; Ali & Abou, 2020; Ndofirepi, 2020); need for achievement, which take into account desires to occupy social positions that will fulfill self-identity expectations (Eisenberger, Jones, Stinglhamber, Shanock, & Randall, 2005; Khan, Breitenecker, & Schwarz, 2015; Maziriri, Nyagadza, Maramura, & Mapuranga, 2022), locus of control, which is derived from internal beliefs in life mastery, from powerful others who influence individual decisions and choices, or from other independent external factors such as chance and destiny (Zollo, Laudano, Ciappei, & Zampi, 2017; Laudano *et al.*, 2019); and the need for independence, which indicates personal responsibility for making decisions and acquiring self-esteem (Ciappei, Laudano, Zollo, & Rialti, 2016; Nyagadza, Kadembo, & Makasi, 2020). Considering the PSYC essential to entrepreneurial attitudes, the researchers hypothesize that.

H2. PSYC positively influence women entrepreneurship.

#### *Effects of environmental factors in influencing women entrepreneurship*

Several research studies revealed that one of the important influences that contributed to the achievement of female businesses is the sustenance received from the local authorities, nongovernmental organizations and other links besides support from their children (Haan, 2004). However, according to Goby and Eroglu (2011) and Gupta and Mirchandani (2018), the small business promotion procedures are lacking in most countries, yet women entrepreneurs should receive support services from organizations or programs which aim to offer sustenance to small companies (Khan *et al.*, 2015; Maziriri, Nyagadza, Maramura, *et al.*, 2022). Empirical research conducted in Greece considered encouragement by other people as another important factor driving females in business. However, results have shown as having a less strong influence on their desire to become entrepreneurs (Petridou & Glaveli, 2008; Kabonga *et al.*, 2021a, b, c). Saleem (2017) and Raman, Anantharaman, and Jayasingam (2008) found that factors influencing women entrepreneurship are largely from initiatives such as third party support, inspiration by people, networks and family, skill and experiences and the desire for freedom. In light of the above discussion, it was therefore, posited that.

H3. ENV positively influences women entrepreneurship.

#### *The effects of sociological factors on women entrepreneurship*

The SOCI point out that the socio-cultural environment can either positively or negatively influence the choice to engage into entrepreneurship (Álvarez, Amorós & Urbano, 2014). McClelland, Swail, Bell, and Ibbotson (2005) note that females are progressively becoming more encouraged by the social influence that their companies can make in society. Furthermore, females have different kinds of social linkages compared to their male counterparts (Kepler & Shane, 2007; Fairlie & Robb, 2009). These social networks give women an opportunity to engage in entrepreneurship (Ozgen & Baron, 2007; Kabonga *et al.*, 2021a, b, c). According to Ummah and Gunapalan (2012), women engage in entrepreneurship following the death of a male family member whom they used to rely on (Maziriri *et al.*, 2022a, b). Research by Sullivan, Halbrendt, Wang, and Scannell (1997) and Kirk and Belovics (2006) found that the need to efficiently balance between employment and household responsibilities often encourages women to engage in entrepreneurship. Similarly, research by Nguyen (2018), Petridou and Glaveli (2008) and Abdul Rahman, Anuar and Daud (2010) suggests that women engage in self-employed business because it likewise provides them the chance to be closer and to dedicate more time to their families, which is the chief characteristic of being a respectable housewife and a businesswoman. This might be particularly applicable

to women with young families who require employment that provides them with a flexible timetable (Hayrapetyan, 2016a). The study therefore posited that.

H4. SOCI positively influences women entrepreneurship.

#### *The effects of women entrepreneurship to sustainability of rural livelihoods*

According to the SLF developed by DFID (2000), livelihoods are considered to be sustainable when there is increased income, increased wellbeing, improved/value-added food security, reduced vulnerability and more sustainable usage of natural resources. One of the main mechanisms of the framework that is relevant to this research is the concept of sustainable livelihoods (Maziriri, Nyagadza, Maramura, *et al.*, 2022; Muzuva & Hlungwani, 2022). According to DFID (1999), livelihoods include the competencies and undertakings necessary for creation of a living. Livelihoods are considered sustainable when they can cope with, recover from stresses and shocks and sustain their capabilities and assets both now and in the future (DFID, 1999). The SLF has been effectively used to appreciate and promote rural development (Chambers, 2011; Baker, Murray, & Agyare, 2018). The SLF was selected as it informs mainly the independent variable of the research. However, there is need for clear strategies to cope with these challenges in order to have sustainable livelihoods. Therefore, it is hypothesized that.

H5. Women entrepreneurship has a positive effect on sustainable rural livelihoods.

#### *Mediated relationship between financial, psychological, environmental and sociological factors*

The purpose of the mediation was to analyze the impact of the predictors with mediating effect of women entrepreneurship. The SOCI point out that the socio-cultural environment can either positively or negatively influence the choice to engage into entrepreneurship and rural livelihoods (Álvarez *et al.*, 2014). The path (direct effect) from all the factors (financial, psychological, environmental and SOCI) to sustainable rural livelihoods has an impact to sustainable rural livelihoods. However, results have shown as having a less strong influence on their desire to become entrepreneurs (Petridou & Glaveli, 2008; Kabonga *et al.*, 2021a, b, c). Saleem (2017) and Raman *et al.* (2008) found that factors influencing women entrepreneurship are largely from initiatives such as third party support, inspiration by people, networks and family, skill and experiences and the desire for freedom. Therefore, it is hypothesized that.

H6. FIN positively mediates sustainable rural livelihoods indirectly.

H7. PSYC positively mediates sustainable rural livelihoods indirectly.

H8. ENV positively mediates sustainable rural livelihoods indirectly.

H9. SOCI positively mediates sustainable rural livelihoods indirectly.

Figure A1 in the Appendix summarizes and illustrates the hypothesized relationships based on the foregoing discussions.

## **Methodology**

This study adopted the positivist paradigm research philosophy since it appreciates the use of the quantitative methodology to achieve quality results. Researchers' positivist perspective in the current study is a result of multiple, emergent, shifting reality out there that can be obtained through objective experience (Saunders, Lewis, & Thornhill, 2009; Nyagadza, Mazuruse, Muposhi, & Chigora, 2022). The reason for adopting this ontological inclination is due to fact that there is stable, law-like reality out there (Chikazhe, Jecha, Nyagadza, Bhebhe, & Manyeruke, 2022). Cross sectional surveys were used, as they have also been used in similar

research (Moses & Mordi, 2010; Tomos, Djebarni, Rogers, Thomas, Clark, & Balan, 2015; Abass, 2018; Khurshid, 2018). Cross-sectional surveys provide an assessment of both the exposure and outcome in a sample of the population at a point in time (Osterholm & Hedberg, 2015; Jacob & Ganguli, 2016). The population of the study consisted of female businesspersons in the rural areas of Manicaland province, Zimbabwe. The participants were in vegetable vending, operating clothing flea markets and cross border trading.

The present study used the Raosoft sample for unknown variables since the statistics for women entrepreneurs in Zimbabwe is not known. Generally, women entrepreneurs in Zimbabwe are still informal, thus their statistical standing is not yet known and there are no records at the relevant ministry, justifying the need for empirical evidence to ensure that their statistical records are put in place. Raosoft (2004) scientific calculator states that unknown population 20,000 was used which give us 400 respondents of the study. The stratified method was used in accessing the sample. Stratified sampling captures key population characteristics in the sample. The area was subdivided into different groups (Nyagadza *et al.*, 2022). Justification for the use of the stratified random sampling technique was due to its higher degree of accuracy, high statistical power and easy-to-use advantages (Saunders *et al.*, 2009). Further to this, stratified enabled the researchers to obtain a sample population which best suited the entire total population that was being studied, making sure that each sub-unit of interest was fully represented (Nyagadza *et al.*, 2022). The five-point Likert scale structured questionnaire was used to collect data since it is easy to understand. The Likert scale ranged from strongly disagree to strongly agree and the respondents were asked to show their response by the use of a tick or a visible mark. Questionnaires were self-administered since it helps to reduce researcher favoritism since there will be no interference from the researchers.

## Results discussion

### *Scale validation*

SPSS version 20 and SmartPLS version 3 were used to perform the analyses. Study constructs were measured using item scales adapted from literature specifically from prior research studies. These included FIN influencing women entrepreneurship (Chelliah & Lee, 2011; Jesurajan & Gnanadhas, 2011; Vossenberg, 2013; Bullough *et al.*, 2015; Meyer, 2018), ENV (Khan *et al.*, 2015; Kabonga *et al.*, 2021a, b, c; Goby & Erogul, 2011), PSYC (Loras & Vizcaino, 2013; Laudano *et al.*, 2019; Eisenberger *et al.*, 2005; Khan *et al.*, 2015; Maziriri *et al.*, 2022a, b), SOCI (Kirk & Belovics, 2006; Ummah & Gunapalan, 2012; Ozgen & Baron, 2007) and impact of women entrepreneurship to the sustainability of rural livelihoods (IFS) (DFID, 1999; Chambers, 2011; Baker *et al.*, 2018). Likert scale used was with a range of strongly disagree (SD) = 1 to strongly agree (SA) = 5. The main importance of the Likert scale questions to statistical community is that they use a universal method of collecting data, which means it is easy to understand them and easy to draw conclusions, reports, results and graphs from the responses.

### *Exploratory factor analysis (EFA)*

EFA was used to identify the underlying relationships between the variables measured. Chan and Idris (2017), advise researchers to carry out an EFA at the beginning of data analysis as part of scale validation. EFA was performed so as to refine and decrease the number of related variables to a more relevant and manageable number prior to using them for further analysis. Varimax (orthogonal rotation) with principal axis factoring on 28 items was used. Orthogonal rotation states that there is no correlation between the resultant components or factors.

Table 1 summarizes the results of the rotated factor matrix for each variable, where three items with factor loadings <0.60 were removed one by one with re-running the analysis for

that specific variable. In total, 26 items were retained for further analysis with no cross-loadings >75% on any other item, and the eigenvalues of one were opted to extract the number of factors (Field, 2013).

*Sampling adequacy*

Kaiser–Meyer–Olkin (KMO) and Bartlett’s test of sphericity (BTS) are arithmetical checks executed to establish the adequacy of the research sample and the suitability of data as a preliminary measure for conducting inferential statistical tests which include EFA (Alexander *et al.*, 2016; Chan & Idris, 2017). The present study’s KMO and BTS were performed in SPSS version 20. Table 2 presents the results.

Item	FIN factors 1	PSY factors 2	ENV factors 3	SOCI factors 4	WIWE factors 5	SRL factors 6
FIN1	0.88					
FIN2	0.89					
FIN3	0.58					
FIN4	0.79					
FIN5	<i>0.41</i>					
PSYC1		0.88				
PSYC2		0.69				
PSYC3		0.75				
PSYC4		0.86				
ENV1			0.65			
ENV2			0.87			
ENV3			0.77			
SOCI1				0.82		
SOCI2				0.83		
SOCI3				0.74		
SOCI4				0.70		
WIWE1					0.72	
WIWE2					0.71	
WIWE3					0.82	
WIWE4					0.73	
WIWE5					0.74	
WIWE6					<i>0.49</i>	
SRL1						0.69
SRL2						0.83
SRL3						0.88
SRL4						0.72
SRL5						0.71

**Table 1.**

Summarized results of rotated factor matrix

**Note(s):** Extraction method: principal axis factoring; factor loading in italic are <0.60  
**Source(s):** Primary data (2022)

KMO and Bartlett’s test

Kaiser–Meyer–Olkin measure of sampling adequacy 0.71

**Table 2.**

Kaiser–Meyer–Olkin (KMO) and the Bartlett’s test of sphericity (BTS)

Bartlett’s test of sphericity Approx. Chi-Square 6093.58  
Df 465  
Sig 0.000

**Source(s):** Primary data (2022)

The results presented in Table 2 mean that the sample was sufficient and for that reason, permitted EFA to be performed (Bhakar *et al.*, 2013). The aim of carrying out EFA was to refine and reduce the number of related variables to a relevant and manageable size before using them in future analyses.

#### Reliability analysis

Reliability of constructs shown in Table 5 ranges from 0.71 to 0.90. This indicates that the data collected in the survey were reliable.

A Cronbach's alpha ( $\alpha$ ) in Table 3 was adopted to regulate the constructs which are reliable. Tore, Gumussoy, and Oskay (2019) and Nunnally (1978) considered alpha threshold of 0.7 or any value higher to validate the internal consistency. Table 4 openly displays that all the measured constructs exhibited reliabilities above the minimum benchmark higher than 0.7 which is acceptable in social science (Norusis, 1992; Ofori-Kuragu *et al.*, 2016).

#### Discriminant validity

The six latent constructs had fulfilled the criteria of discriminant validity. Heterotrait-Monotrait ratio (HTMT) was also used. Henseler, Ringle, and Sarstedt (2015) proposed a more rigorous assessment of the variables discriminant validity by observing the HTMT criterion. Henseler's HTMT criterion recommends that all the variables are uniquely different at HTMT 0.90 cut-off point. As shown in Table 5, the HTMT values for all variables are in the range from 0.60 to 0.82 and these indicate that are variables are uniquely different at values below HTMT 0.90 which also confirms discriminant validity.

#### Testing research hypotheses

Research hypotheses H1–H5 were tested using structural equation modeling (SEM) in AMOS. The SEM technique is ideal since it is able to determine relationships and also able to suggest a general fit between observed data and the research model (McQuitty & Wolf, 2013). Results presented show that hypotheses H1–H4 were supported. These hypotheses have  $t$  values greater than 2 ( $CR > 2$ ) which entails that the relationships were significant. Results in Table 6 imply that FIN positively influences women entrepreneurship. This finding is consistent with previous studies (Naser, Mohammed, & Nuseibeh, 2009; Nasir, Iqbal, & Akhtar, 2019). This implies that Zimbabwean women engage in entrepreneurship driven by financial motives (inadequate family income, the need to be financially self-sufficient, access to start-up capital, difficulty in finding formal work and need to supplement household income). H1 was therefore supported.

PSYC were found to positively influence women entrepreneurship. This finding is in line with a study conducted by Schlaegel and Koenig (2014), Loras and Vizcaíno (2013), Thompson (2009) and Kirkwood and Campbell-Hunt (2007). Based on these findings, it is

Construct	Number of items	Cronbach's alpha ( $\alpha$ )
Financial factors	5	0.90
Environmental factors	3	0.71
Psychological factors	4	0.78
Sociological factors	4	0.86
Women Entrepreneurship	6	0.82
Sustainable Rural Livelihoods	5	0.79

Source(s): Primary data (2022)

**Table 3.**  
Construct, number of  
items and Cronbach's  
alpha ( $\alpha$ )

Construct	Items	Factor loadings (F)	Number of indicators (n)	CR	AV
Financial factors	FIN1	0.88	4	0.87	0.63
	FIN2	0.89			
	FIN3	0.61			
	FIN4	0.79			
Environmental factors	ENV1	0.65	3	0.81	0.59
	ENV2	0.87			
	ENV3	0.77			
Psychological factors	PSYC1	0.88	4	0.89	0.67
	PSYC2	0.69			
	PSYC3	0.75			
	PSYC4	0.86			
Sociological factors	SOCI1	0.82	4	0.85	0.62
	SOCI2	0.83			
	SOCI3	0.73			
	SOCI4	0.70			
Sustainable rural livelihoods	SRL1	0.69	5	0.79	0.59
	SRL2	0.83			
	SRL3	0.88			
	SRL4	0.72			
	SRL5	0.71			
Women entrepreneurship	WIWE1	0.72	5	0.81	0.58
	WIWE2	0.72			
	WIWE3	0.82			
	WIWE4	0.73			
	WIWE5	0.74			

Note(s):

$$CR = \frac{(\sum F)^2}{[(\sum F)^2 + \sum (1 - F^2)]} \quad (1)$$

$$AVE = \frac{\sum F_i^2}{n} \quad (2)$$

Where:

F = standardized factor loading

N = number of items

**Table 4.**  
Convergent validity

Source(s): Primary data (2022)

Variables	FIN	PSC	ENV	SOCI	WIWE	SRL
FIN						
PSC	0.72					
ENV	0.81	0.76				
SOCI	0.71	0.68	0.71			
WIWE	0.65	0.70	0.67	0.60		
SRL	0.73	0.64	0.68	0.67	0.82	

**Table 5.**  
Heterotrait-Monotrait ratio (HTMT)

Source(s): Primary data (2022)

clear that the influence of PSYC toward women entrepreneurship seems to be consistent. Hence, H2 was supported.

The presented results also supported the hypothesized relationship H3 implying that ENV positively influence women entrepreneurship. This suggests that environment where women operate their businesses has a greater effect on their entrepreneurial activities. This finding

**Table 6.**  
Results of hypotheses  
testing

Hypo	Path	Path Coeff ( $\beta$ value)	Confidence interval		T value	P-value	Sig level
			2.5%	97.5%			
H1	FIN → WIWE	0.48	0.27	0.52	6.32	<0.001	Significant
H2	PSY → WIWE	0.091	0.04	0.18	2.65	<0.001	Significant
H3	ENV → WIWE	0.02	0.01	0.25	2.30	<0.001	Significant
H4	SOCI → WIWE	0.34	0.17	0.52	5.20	<0.001	Significant
H5	WIWE → SRL	0.70	0.37	0.81	9.42	<0.001	Significant

**Note(s):** SRW standardized regression weight,  $t$  values, \*\* significant at  $p < 0.05$ , \*\*\* significant at  $p < 0.001$ , <sup>ns</sup> not significant

**Source(s):** Primary data (2022)

upholds findings of Ibrahim and Mas'ud (2016) who established a positive relationship between ENV and women entrepreneurship.

Moreover, results presented in Table 6 show that H4 was supported. This implies that SOCI positively influence women entrepreneurship. This denotes that socio-cultural environment in which women operate their businesses plays a key role on their entrepreneurial engagements and their success. This finding concurs with previous studies by Agarwal and Lenka (2016), Okello (2020) and Ng and Jenkins (2018) that social factors have a positive and significant influence on women entrepreneurship.

Findings also show that *women entrepreneurship* significantly predicts *sustainable rural livelihoods* and direct relationship was noted ( $\beta$  value = 0.70;  $t$  value = 9.42; significant at  $p < 0.001$ ). A positive standardized regression weight indicates that women entrepreneurship has positive influence on sustainable rural livelihoods. Women entrepreneurs in Manicaland province agreed that there are positive changes in their livelihoods outcomes evidenced by improved food security, increased income, increased well-being and reduced vulnerability of their livelihoods. This finding extends the current body of knowledge since various previous studies did not research on the effect of women entrepreneurship on sustainable rural livelihoods. They mainly considered characteristics and motivations, start-up resources and limitations, managerial issues of women-owned firms, finance in women-run businesses, women's business networks and measuring business performance and growth (Hisrich & Brush, 1986; Carter, Shaw, Lam, & Wilson, 2007; Nasir *et al.*, 2019; Zeb & Ihsan, 2020). This therefore, shows that H5 was supported.

#### *Structural research structurally validated model*

Figure A2 shows the model that was used to test the hypothesized relationships H1–H5 and the results are shown in standardized formats. Findings in Figure A2 are presented in standardized format, and it is evident that all the hypothesized relationships were supported. H1–H5 had standardized estimates greater than 0.2 and they were all significant. Therefore, hypotheses H1–H5 were supported.

#### *Mediation effect analysis*

To examine the proposed mediation, we used Hayes Process Macro (HPM) in SPSS that was developed by Andrew F. Hayes to run the analysis. The model is for specifically testing the indirect effects of variables. Therefore, the researcher used (Hayes, 2013) method for mediation analysis in SPSS V 25.0. The results indicated that the  $R$  square is 0.70 meaning that 70.44% of variance in Sustainable Rural Livelihoods was accounted by FIN with  $p < 0.05$ , thus the model is significant at all stages. The path (direct effect) from FIN to sustainable rural livelihoods is positive and significant ( $\beta = 0.64$ ,  $se = 0.16$ ,  $p = 0.0001$ ) indicating that FIN contribute positively to sustainable rural livelihoods. The indirect effect was tested using

nonparametric bootstrap estimation approach, implemented with the process macro version 3 (Hayes, 2017). If the intervals of the lower bound and upper bound of the 95% confidence intervals falls between 0 then the indirect effects are statistically insignificant. From the results, the indirect effect of FIN on sustainable rural livelihoods with women entrepreneurship as the mediator variable is positive and significant since the bootstrap lower confidence and bootstrap upper confidence excludes 0 (LCI = 0.14 and UCI = 0.32). These results support the mediation hypothesis. Mediation analysis was also supported on PSYC, ENV and SOCI with women entrepreneurship as the mediator variable.

*Evaluation of the structural model*

After the validation of convergent validity, discriminant validity and reliability of the measurement model and testing of the relationship between variables takes place evaluation of the model followed. Coefficient of determination ( $R^2$ ) value of the endogenous constructs was done as part of analysis in the study. Schumacher, Erol, and Sihm (2016) define  $R^2$  value as the percentage of variance in the variable that is accounted for by association in the independent variable groups.  $R^2$  values of 0.75, 0.5 and 0.25 can be considered substantial, moderate and weak, respectively (Hair, Ringle, & Sarstedt, 2011; Hair, Sarstedt, Ringle, & Mena, 2011). Very high values of  $R^2$  may result in model overfitting the data and may result in spurious relationship provided the  $R^2$  value is greater than the Durbin–Watson value. In the current case women entrepreneurship in Table 7 has an  $R^2$  value of 0.80 which is being explained by FIN, PSYC, ENV and SOCI. The predictors have a direct effect toward women entrepreneurship but later have an indirect relationship toward sustainable rural livelihoods. Sustainable rural livelihood, which is our main dependent variable, has an  $R^2$  value is 0.489 contributed by women entrepreneurship. The predictors have an indirect contribution of the  $R^2$  value. The developed model has a moderate to substantial explaining power.

One of the assumptions of structural equation modeling is multicollinearity. Before judging the structural interactions, collinearity must be studied to ensure that it does not prejudice the results. The variance inflation factor (VIF) and tolerance is often used to evaluate collinearity of the predictors. Hair, Risher, Sarstedt, and Ringle (2019) noted that VIF values of 5 or above indicate critical collinearity issues among the variables whilst Collier (2020) noted that tolerance values (>0.10) are desirable. However, collinearity issues can also occur at lower VIF values of 3 (Becker, Reimer, & Rust, 2015). The VIF values should be close to 3 or lower. From our model results, the VIF's values of the most variables were below the rules of thumb of 5 and tolerance values were 0.196 and 0.51 which approves that there is no multicollinearity. Effect size ( $f^2$ ) is a measurement that tells the impact of change in the  $R^2$  value when a specified exogenous construct is ignored in the model (Hair, Ringle, et al., 2011; Hair, Sarstedt, et al., 2011). An effect size  $f^2 \leq 0.30$ ,  $0.30 < f^2 \leq 0.50$  and  $f^2 > 0.50$  is thought to represent a weak, moderate and strong effect respectively (Bliwise, 2006). The relationship between constructs shows that the effect size is considered as moderate (Bliwise, 2006).

In addition to  $R^2$  as a predictive criterion, Hair, Hult, Ringle, Sarstedt, and Thiele (2017) recommended that researchers examine  $Q^2$  to assess the predictive relevance of the

Constructs	$R^2$	Women entrepreneurship and sustainable rural livelihoods as dependent variables		
		Tolerance	VIF	Effect size
WIWE	0.80	0.20	5.08	0.32
SRL	0.49	0.51	1.96	0.47

Source(s): Primary data (2022)

**Table 7.**  
Variance inflation factor (VIF) and effect size

structural model. [Chin \(1998\)](#) mentions that the predictive relevance of constructs must be positive and with values greater than zero, as does [Hair, Ringle, et al. \(2011\)](#) and [Hair, Sarstedt, et al. \(2011\)](#). The size of the  $Q^2$  effect allows one to evaluate how an exogenous construct contributes to an endogenous latent construct  $Q^2$  as a measure of predictive relevance, which can be small (0.02), medium (0.15) or large (0.35). The study obtains a  $Q^2$  of 0.32 for women entrepreneurship and 0.251 for sustainable rural livelihoods which is within the required limit and supports that the path model's predictive relevance was adequate for the endogenous construct.

The standardized root mean square residual (SRMR) is an index of the average of standardized residuals between the observed and the hypothesized covariance matrices ([Chen, 2007](#)). SRMR is a measure of the estimated model fit. When  $SRMR \leq 0.08$ , then the study model has a good fit ([Hu et al., 1998](#)), with a lower SRMR being a better fit. According to the results presented in [Table 8](#), the SRMR value for the fitted model is 0.0723, which is less than the threshold value of 0.08, suggesting that the model can be accepted. Furthermore, the NFI value for the model is 0.903 which is slightly above the recommended threshold value of 0.9. These results suggest that the fitted model is a good model, whereas the chi-square was equal to 4629.28.

#### Overall assessment

Goodness of fit (GoF) defined as the geometric mean of both average variances extracted (AVE) and the average of  $R^2$  of all endogenous variables ([Akter, D'Ambra, & Ray, 2011](#)). The partial least square (PLS) results can be assessed globally for the overall model and locally for the measurement model and the structural model. The criteria of GoF to decide whether GoF values are not fit, small, medium or large to be considered as global valid PLS model are given by [Akter et al. \(2011\)](#) as GoF less than 0.1 (not fit), GoF between 0.1 and 0.25 (small), GoF between 0.25 and 0.36 (medium) and GoF greater than 0.36 (large). The formula for calculating GoF was adopted from [Akter et al. \(2011\)](#) as follows:

$$GoF = \sqrt{AVE \times R^2}$$

Therefore, the GoF value for this study is 0.63 in [Table 9](#) which is above 0.36 as indicated ([Akter et al., 2011](#)). This proves that the developed model is large in explaining the issues of corporate brand perception.

## Discussion and conclusion

Findings from this study make a novel contribution, in that it sought to establish the effect of women entrepreneurship and its effect on sustainable rural livelihoods. Various previous scholars had mainly considered challenges faced by women entrepreneurs and none established the effect of women entrepreneurship on sustainability of rural livelihoods. Although entrepreneurship was traditionally considered as a man's stronghold, women are coming into the limelight to fulfill their aspirations as it is a fruitful opportunity where both

	Estimated model
Standardized Root Mean Square (SRMR)	0.072
d_ ULS	17.24
d_ G	19.03
Chi-square	4629.28
NFI	0.90
<b>Source(s):</b> Primary data (2022)	

**Table 8.**  
Goodness of Fit (GoF) results

**Table 9.**  
Goodness of Fit (GoF)  
Index calculation

Construct	AVE	R <sup>2</sup>
FIN	0.63	
PSYC	0.67	
ENV	0.59	
SOCI	0.62	
WIWE	0.58	0.80
SRL	0.59	0.49
AVE × R <sup>2</sup>	0.40	
GoF	0.63	

**Source(s):** Primary data (2022)

the literate and uneducated can do wonders to achieve their dreams. It is evidenced in other parts of Africa where women have managed to move from the traditional zone to the working environment for the uplifting of the society and family, after having realised the need for self-sustenance. Zimbabwe is one of the countries with statistics showing 50 to 54% of female headed families with poverty. Although these statistics are of around 2009/10 in 2011, 72.3% of the Zimbabwean population were considered poor, whilst households in Zimbabwe deemed poor were 62.6% of the total population.

Overall, the government and the supporting partners must make an effort in providing adequate support needed by women entrepreneurs for the sustainability of women entrepreneurs. Since women entrepreneurship can play a bigger role in sustaining livelihoods, development and growth of the economy. Despite previous studies to address the problem, there is deficient knowledge about the extent to which women entrepreneurship affects sustainable rural livelihoods. Also, [Agarwal and Lenka \(2018\)](#) acknowledge the need for and importance of future research in the area of women entrepreneurship in order to strengthen women entrepreneurship programs and policies. Therefore, the knowledge gap in this area is insufficient understanding of strategies to sustain women entrepreneurship in Zimbabwe. This study intends to contribute to the entrepreneurship body of knowledge by investigating the effect of women entrepreneurship on rural livelihoods of Manicaland province in Zimbabwe. Further to this, the results of the study contributes to theoretical insights by extending the perspectives of the entrepreneurship motivation theory and developing the SLF assumes that people live within a vulnerability environment made up of shock waves, developments and seasonality.

### *Theoretical implications*

Many researchers have conducted studies on women entrepreneurship both in developing and developed nations. However, there still is a dearth of studies which have focused on women entrepreneurship and its effect on sustainable rural livelihoods in emerging economies. It is against this background that this research was conducted to close this knowledge gap and contribute to the present body of knowledge. The findings from the study put forth that women entrepreneurship has a positive effect on sustainable rural livelihoods. This substantiates the present body of literature. These findings show that the effect of women entrepreneurship on sustainable rural livelihoods cannot be ignored across the country. The study therefore, established that women entrepreneurship has a positive effect on sustainable rural livelihoods in Zimbabwe. With regards to challenges hindering women entrepreneurship, the findings indicate that patriarchal societal structure of the case study community and lack of relevant entrepreneurial knowledge to manage the businesses, are the major hindrances of sustainability of women entrepreneurship.

The study further extends the general understanding in literature pertaining strategies for improving women entrepreneurship activities. The effect of strategies for improving women entrepreneurship activities was found to be positive. This implies that women entrepreneurs need help from the supporting structures, which will have impact on the sustainability of their livelihoods. Theories adopted on this study show that women entrepreneurship motivating factors are FIN, ENV, PSYC as well as SOCI. The SLF highlighted that there is need for adequate assets for the success and sustainability of women entrepreneurship. And there is need for women entrepreneurs, the community, the government as well as the supporting partners to minimize the vulnerability of women businesses.

Furthermore, the study adds value to the entrepreneurship motivation theory as the study shows that female businesspersons who are motivated by a combination of factors (financial, environmental and psychological as well as sociological) and they drive willingness of women to venture in entrepreneurship. The study informs the entrepreneurship motivation theory as it comprehends several variables for venture creation. It assimilates the roles of financial, sociological, psychological, ENV and the individual's competence in encouraging entrepreneurial behavior. The motivational factors are considered as assets needed for the sustainability of livelihoods. The willingness of women to initiate and venture into entrepreneurship is important. The availability of these factors is not enough as women entrepreneurs must be willing to make use of the opportunities available to them within a specific environment and convert them into a venture. This is due to the fact that women entrepreneurship is a function of motivational factors and capability.

#### *Practical implications*

The research shows that it is important for government to provide adequate funding to women entrepreneurs, for example, the Women's Bank of Zimbabwe. One strategy can be where women businesspersons can have access to capital at reasonable interest charges, for instance by decreasing the charges by banks and microfinance organizations or generating exceptional monies, which can be retrieved or open to women businesspersons without too much bureaucracy. Government must make sure that these banks have sufficient income to cater for all women in business.

The government can offer women entrepreneurs special grants, resources, business centers, enterprise rewards to motivate women to start and stay in the entrepreneurship field. There is need of developing field or practical based entrepreneurship training to enhance sustainability of women entrepreneurship. The path (direct effect) from FIN to sustainable rural livelihoods is positive and significant ( $\beta = 0.64$ ,  $se = 0.16$ ,  $p = 0.0001$ ), indicating that FIN contribute positively to sustainable rural livelihoods. This means Zimbabwean women entrepreneurs are still facing challenges in sustaining their livelihoods, but financial factor play a bigger role in building the entrepreneurship drive for the women.

Further in support of this notion, from the results, the indirect effect of FIN on sustainable rural livelihoods with women entrepreneurship as the mediator variable is positive and significant since the bootstrap lower confidence and bootstrap upper confidence excludes 0 (LCI = 0.14 and UCI = 0.32). Continuous advisory and counseling services are needed to constantly check and monitor progress for women entrepreneurs. Women entrepreneurs suffer emotionally hence there is need to make professional counselors available. African traditional leaders must take its part in encouraging and wavering patriarchal systems, thereby educating and encouraging male figures not to interfere in women businesses.

The success and sustainability of women entrepreneurship demands household, and husband emotional support. Social capital refers to community or society linkages, standards of reciprocity, common help and honesty or dependability. Traditional leaders can take advantage of male gatherings and meetings and encourage them to continuously support

women businesses. Nongovernmental organizations may need to avail adequate funds, resources and field based training and encourage women entrepreneurs to join cooperatives such as internal social money lending groups (Mukando) and others. Books on entrepreneurship can also be translated into the local languages help women entrepreneurs some of whom may not be able to read and write English.

### Directions for future research

The study considered women entrepreneurship in the rural areas of Manicaland province, Zimbabwe. This might pose generalizability challenges. It is, therefore, recommended that future research be conducted in other rural areas in Zimbabwe. Future research might also be conducted in other developing countries to enable meaningful conclusions. The study also recommends that a qualitative study should also be conducted to enhance generalizability.

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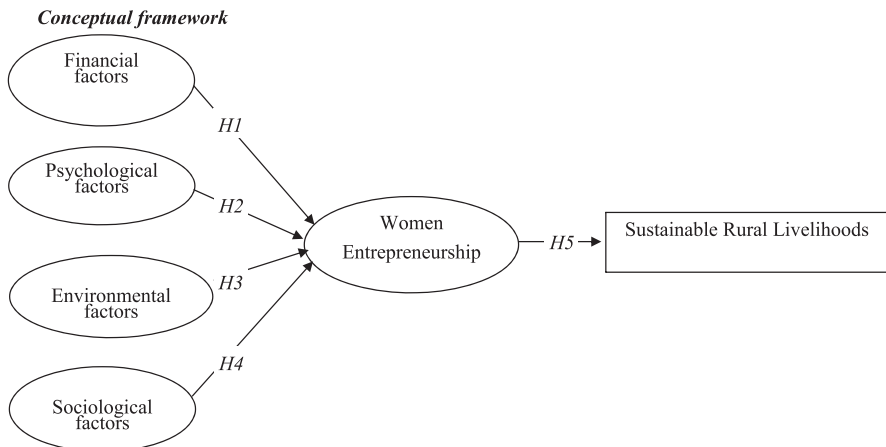
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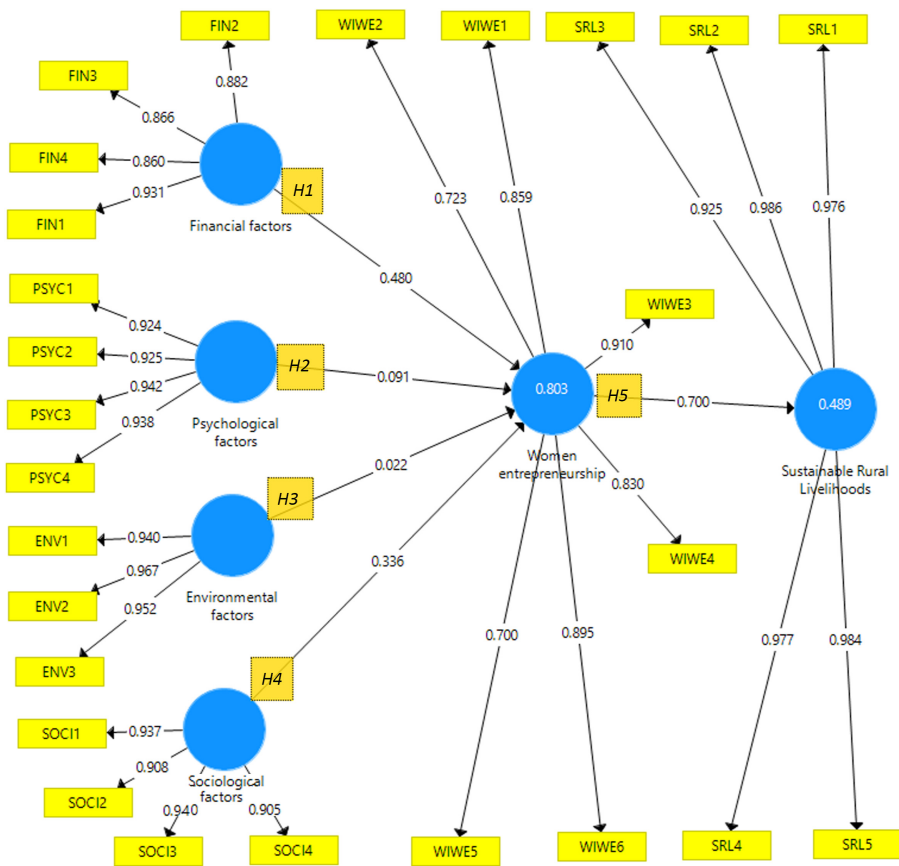
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**Appendix**



**Figure A1.**  
Conceptual framework

**Source(s):** Researchers (2020)



Source(s): Research (2022)

Figure A2. Research structurally validated model

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