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An Exploratory Study of Women in the Service Industry of Johannesburg

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Abstract

The aim of research was to assess and evaluate the relationship between profitability and skills in social entrepreneurship among female entrepreneurs who operate in the services economic sector or industry of Johannesburg, South Africa. The study was carried out by gathering data from a stratified random sample of size 946 business enterprises operating in the services industry of Johannesburg on 31 indicators of profitability. The study assesses the level of social entrepreneurship by measuring proxy variables for the 4 pillars of social entrepreneurship (the ability to use human capital without causing harm to human rights, evidence of a well-balanced human capital, the ability to render business services profitably on a long-term basis, and the ability to render business services without causing harm to the environment and vulnerable members of local communities).A composite index consisting of 8 dimensions was constructed by using criteria set out for quantifying the level of social entrepreneurship by Schumpeter (1991), Satar (2022) and Samuel, White, Peattie and Thomas (2022). The study found that 802 of the 946 businesses in the study (84.78%) were profitable, whereas the remaining 144 businesses (15.22%) were not profitable. Estimates obtained from ordered logistic regression analysis showed that profitability was significantly influenced by 3 factors. These factors were ownership of business, duration of business operation, and level of social entrepreneurial skills.

Key words*: Johannesburg, Women entrepreneurs, Services sector, Ordered logistic regression*

Introduction and background to study

Women entrepreneurs living in the various regions of Gauteng Province make a highly valuable economic contribution to the South African economy (Ngubeni, Ivanovic&Adinolfi, 2022; Ribeiro, Adam, Kimbu, Afenyo-Agbe, Adeola, Figueroa-Domecq&de Jong, 2021). The authors have identified various socioeconomic obstacles that are known to stifle profitability in business enterprises that are owned and operated by South African women.

Examples of such obstacles are difficulty in securing start-up capital, inability to secure business loans from commercial banks, high interest rates on business loans, inadequate auditing, bookkeeping, entrepreneurial, marketing, networking and managerial skills, and cumbersome bureaucratic processes related to license registrations and tax assessment. Aneke, Derera and Bomani (2017) have identified barriers that undermine profitability among women working in the South African construction industry, and have identified obstacles such as lack of capital, lack of technical skills, and difficulty in securing contracts due to intense competition from well-established construction firms. Maziriri, Mapuranga, Maramura and Nzewi (2019) have argued that emerging and poorly resourced South African women entrepreneurs must be supported adequately by local municipalities and the South African Government in terms of macroeconomic policy, access to business loans and skills-based training opportunities.

Mulaudzi and Schachtebeck (2022) have provided a range of obstacles and difficulties that undermine profitability in business enterprises in the transportation industry that are owned and operated by female entrepreneurs and have found that there is a dire need for support from provincial governments and local municipalities. Diale and Carrim (2022) have conducted a survey of South African women entrepreneurs and have found that poorly resourced female entrepreneurs are exposed to unfair and stiff competition from well-established companies and are not allowed to mature or grow in a protected and adequately supported environment. The authors have found that women entrepreneurs with the potential to succeed and thrive go out of business due to lack of support from local municipalities. Fatoki (2018), Worku (2022), Ayatakshi-Endow and Steele (2021), Bendell, Sullivan and Hanek (2020), Bullough, Guelich, Manolova and Schjoedt (2022), Chiplunkar and Goldberg (2021), Newman and Alvarez (2022) and Kalnins and Williams (2014) have identified various obstacles to sustained profitability in emerging entrepreneurs that cause failure within the first 3 years of business operation. Examples of common causes of failure are lack of skills in writing up business plans, inability to produce collateral to commercial banks, difficulty in securing business loans from commercial banks, difficulty in obtaining business licenses, inadequate municipal services, poor entrepreneurial, marketing and networking skills, failure to provide tailor-made support to business enterprises that are owned and operated by poorly resourced women entrepreneurs, and intense competition from well-established business enterprises.

Iwu, Sibanda and Makwara (2022) have highlighted the dire need for administrative, financial and policy-related support in business enterprises that are owned and operated by South African women. The authors have found that the majority of poorly skilled and poorly resourced South African women entrepreneurs are required to overcome gender-based disadvantages as well as difficulties that are related to lack of skills, lack of working capital, difficulty in securing business loans on favourable terms, and cumbersome bureaucracy and red tape in local municipalities. The authors have shown that it is much harder for women to acquire business loans, trade licenses and business contracts due to gender-based discrimination and lack of support.

The study conducted by de Silva (2022) in Sri Lanka has found that the provision of policy related support is a highly valuable tool in building entrepreneurial capacity in women entrepreneurs. The authors have pointed out that support could be provided to women entrepreneurs in terms of policy, entrepreneurial training and business loans. Meyer and Kruger (2021) have assessed factors that motivate South African female entrepreneurs to compete against well-established businesses and have found that policy related support, assistance in terms of entrepreneurial skills, easing the task of securing business loans under favourable terms, and good leadership at the level of local municipalities are highly valuable for ensuring viability and profitability in business enterprises that are owned and operated by South African women.

Al-Dajani, Akbar, Carter and Shaw (2021) have assessed factors that undermine profitability in poorly resourced female-owned business enterprises in Jordan. The authors have shown that vulnerable and poorly resourced female-owned business enterprises need to be provided with adequate physical protection as well as administrative, technical and financial support from local municipalities in order to thrive. Viable female-owned business enterprises create employment opportunities and livelihoods to a significant percentage of the population worldwide. If they are supported adequately, they can effectively alleviate poverty and unemployment in all developing nations including South Africa. The study will lead to the identification and quantification of socioeconomic factors that stifle profitability in businesses that are owned and operated by South African women who live and work in the various geographical regions of Johannesburg.

Ogada, Wadongo and Omondi (2021) have conducted a survey in Kenya to identify factors that stifle sustained growth and profitability in female-owned business enterprises and have found that the provision of basic entrepreneurial education and the simplification of cumbersome bureaucratic processes is highly helpful for reducing the rate of failure in poorly resourced and nascent business enterprises that are owned and operated by women. There are similar needs in emerging businesses that are owned and operated by women entrepreneurs in the various townships of Gauteng Province. Bendell, Sullivan and Hanek (2020) have found that it is highly valuable to equip emerging and poorly skilled women entrepreneurs with training and mentorship opportunities on a regular basis. In this regard, assistance can be extended to needy women entrepreneurs by way of coaching and mentoring them on a regular basis. Such measures are helpful for minimising the failure rate among nascent female entrepreneurs conducting business and rendering business related services in Johannesburg.

More research work needs to be carried out to determine cost-effective methods of providing assistance to women entrepreneurs in Johannesburg. Benevolo, Penco and Torre (2021) have indicated that the ability to take informed business decisions requires basic competence in entrepreneurial skills and knowledge. Emerging women entrepreneurs can acquire adequate entrepreneurial skills by way of attending administrative and technical training sessions that are provided by the South African Small Enterprise Development Agency (SEDA, 2022). The study conducted by Worku (2022) shows that training and assistance programmes that

are offered by SEDA to emerging entrepreneurs are often not fully exploited by emerging entrepreneurs.

Objective of study

The aim of research was to assess and evaluate the relationship between profitability and skills in social entrepreneurship among female entrepreneurs who operate in the services economic sector or industry of Johannesburg, South Africa. The study assesses the level of social entrepreneurship by measuring proxy variables for the 4 pillars of social entrepreneurship (the ability to use human capital without causing harm to human rights, evidence of a well-balanced human capital, the ability to render business services profitably on a long-term basis, and the ability to render business services without causing harm to the environment and vulnerable members of local communities).

Literature review

Studies conducted about women entrepreneurs by Nouri (2021), Nouri and Ahmady (2018) and Abou-Moghli and Al-Abdallah (2019) indicate that successful women entrepreneurs are characterised by the ability to seek new growth opportunities and innovate traditional methods for lowering the cost of doing business. Factors that affect success in female entrepreneurship (Schumpeter, 1991) include the optimal utilisation of resources that are required to do business. This includes the ability to adapt and use appropriate technology for lowering the cost of service delivery to customers. The Entrepreneurial Value Creation Theory (Mishra and Zachary, 2015) states that women entrepreneurs who are capable of creating and monetising entrepreneurial value have the potential to operate and profit from business ventures on a sustainable basis. Studies conducted by Panda (2018) and Panda and Dash (2016) have explored the relationship between venture capital and the ability of female entrepreneurs to optimally utilise resources. The studies have shown that the ability to use innovative methods of marketing and networking are critical requirements for profitability. This finding is especially true to women who conduct retail business activities in developing nations. Baron (2008) and Baum and Locke (2004) have identified critical traits of successful female entrepreneurship that include the ability to learn and master innovative methods of entrepreneurship, the ability to identify a gap in markets, the ability to fill the gap identified in markets, and the ability to utilise resources optimally in the course of rendering services to clients and stakeholders. The list of critical skills identified by the authors includes following new ideas and curiousity, commitment to service excellence, commitment to lowering the cost of service delivery, commitment to ensuring the best interest of customers and clients alike, the ability to assess markets by using appropriate business intelligence methods and techniques, effective networking and marketing, willingness to solicit comments and constructive ideas from business rivals and competitors, and commitment to maintain productive business relationships on a sustainable basis.

Value creation enables women entrepreneurs to lower the cost of business operation (Yadav, 2021) without lowering service level agreements and expectations from customers. This is attributed to the use of appropriate technology for marketing, networking and distribution, the

ability to identify areas of need from the points of views of customers and clients, and the ability to learn from business rivals and competitors (Ughetto, Rossi, Audretsch&Lehmann, 2020). Treanor (2022) and Poggesi, Mari, De Vita and Foss (2020) inform us that the effective use of science, technology, engineering and mathematics enables women entrepreneurs to innovate and lower the cost of doing business effectively.

Innovative women are the key drivers of innovation in all developed economies of the world including the USA, Germany, China, South Korea, India, the United Kingdom, Canada, Japan and Australia(Rosca, Agarwal&Brem, 2020). The research work conducted by Anderson and Ojediran (2022) shows that female entrepreneurs working in developing nations lag behind those who work in developed nations due to difficulty in acquiring appropriate technological and human resources that are essential for lowering the cost of doing business. The authors have argued that support is required from national governments to alleviate this hinderance. Women entrepreneurs living and working in developing nations are exposed to harmful and unhelpful traditional and cultural obstacles. This is especially true in the world's least developed nations in Sub-Saharan Africa, Southeast Asia and Latin America (Fauzi, Antoni&Suwarni, 2021).

Bullough, Guelich, Manolova and Schjoedt(2022) have found that women entrepreneurs working in developing nations are often required to overcome bias arising from cultural, traditional, educational and faith-related attributes in addition to having to compete with male entrepreneurs who are better resourced and enjoy preferential treatment in terms of legislation. Ayatakshi-Endow and Steele (2021) have shown that women entrepreneurs in Brazil are often required to remain relatively more vigilant and innovative in comparison with their male counterparts in order to remain successful in the market.Foss, Henry, Ahl and Mikalsen (2019) have found that women entrepreneurs must be capable of adapting to change in the market place and use innovative methods and appropriate technology in order to remain competitive in the marketplace.

Studies conducted by Samuel, White, Peattie and Thomas (2022), Hechavarria, Bullough, Brush and Edelman (2019)and Worku (2019, 2022) indicate that emerging and poorly resourced women entrepreneurs working in developing nations must be provided with the support they require from national and regional governments as well as local municipalities in order to remain viable on a sustainable basis. The authors have pointed out that the key aspects of such support are access to business loans, entrepreneurial and skills-based training, mentorship and close supervision.

The alleviation of poverty, hunger and unemployment requires the effective empowerment of women in all developing nations including South Africa. Globally, one of the best examples in which rural women have been empowered comes from the Grameen Bank of Bangladesh in which the Government of Bangladesh played the role of loan guarantor so that business loans could be extended to women applicants (Yunus, 1998). Mahajan and Bandyopadhyay (2021) and Nadin, Smith and Jones (2020) have suggested various methods in which satisfactory policy-related assistance could be provided to women entrepreneurs. Which platform support women entrepreneurs?

The Government of India actively supports community-based institutions such as Ichha Shakti and Gyaan Shakti to promote entrepreneurial interest among women. The initiative is taken primarily as a means of alleviating poverty among poorly resourced and poorly skilled women living in rural and urban communities. The institutions provide valuable administrative, technical and financial support and assistance to women entrepreneurs. The aim of training and mentorship is to enable women to identify a gap in the services market and start a small business venture that is devoted to filling the gap that has been identifiedon a sustainable basis. Similar initiatives are used in other parts of the developing world. The process is highly successful in the alleviation of poverty among women of all ages. The initiative taken by the Government of India is highly beneficial for the alleviation of poverty and the creation of jobs in developing nations such as South Africa. The World Bank (2022) also promotes similar initiatives in developing nations of the world for similar purposes. The World Bank recommends the provision of satisfactory support to emerging and poorly resourced small businesses by rolling out tailor-made training opportunities on entrepreneurial skills, marketing and networking with well-established business enterprises. This recommendation is heeded by the Governments of Bangladesh (Yunus, 1998) and India (Singh, 2019).Similar assistance should be provided to women entrepreneurs in Sub-Saharan African countries.

Shane, Locke and Collins (2003) have provided a list of reasons that motivate women to engage in entrepreneurial activities. A few examples of such reasons are the need for ensuring sustainable income and self-esteem within the household and the community. A woman who has a sustainable source of income is highly respected within and outside the household. The path of entrepreneurship allows a woman to earn and generate enough income that would lead to recognition, acknowledgement, elevation to the rank of leadership, emancipation from suppression at the household level, self-actualisation and fulfilment. A woman who can establish profitability in a business venture commands significant respect at the level of the household and communityand overcomes the age-old gender-discrimination obstacle (Sexton&Bowman-Upton, 1990).

Muhammad, Robinson and Nisar (2019) have conducted a survey in Pakistan about factors that affect entrepreneurial success among women and have found that poorly resourced and poorly skilled women require massive assistance and support from their households, local communities and regional and national governments. The key finding of the authors is that national and regional governments can use appropriate macroeconomic policy and legislation to ease the task of pursuing entrepreneurship. The authors have highlighted the need for awareness education and skills related training programmes.

Meek and Williams (2018) have pointed out the need for close supervision, mentorship, persistence and commitment in the course of promoting entrepreneurship among poorly skilled and poorly resourced women in developing communities. The key role of leaders is to help women identify a gap that could be filled by women easily. Following the identification of a gap, the next step is to equip and train women with the skills and resources that are required to fill the gap adequately. Studies conducted in Iran by Golzard (2020)and

Cheratian, Golpe, Goltabar and Iglesias (2019) have shown that Iranian women have been successfully empowered to thrive in the information communication technology (ICT) industry by way of providing them with the necessary skilled based training, access to start-up capital and supervisory support. The study has shown that regional and national governments can play valuable roles by easing cumbersome bureaucratic challenges that are related to trade licenses, and by providing easy access to business loans and start-up capital. The same level of success can be achieved in all developing nations in Sub-Saharan Africa including South Africa.

Ghouse, McElwee, Meaton and Durrah (2017) have identified various socioeconomic and cultural barriers to rural women entrepreneurs in the State of Oman, and have found that it is essential to promote awareness campaigns and education to members of the local community about the benefits of supporting women in their quest to be successful entrepreneurs. The authors have shown the benefits of simplifying cumbersome bureaucratic processes related to business registrations, license applications, tax assessment, business loan applications, marketing and networking.

Women entrepreneurs play a significant role in developing nations such as South Africa in the creation of livelihoods and jobs. A successful female entrepreneurship depends on the extent to which appropriate technological innovation is used on a daily basis at the workplace. It is vital to use digital marketing, social media and the internet for effective marketing and networking. These platforms are also vital for gathering market related information promptly and effectively. It is necessary to keep in touch with customers and clients alike to assess their level of satisfaction with the quality and efficiency of services rendered on a regular basis.

Successful women entrepreneurs keep their databases of clients, business records and financial transactions accurately. Such records must be kept up to date in order to avoid financial losses. These records are also highly valuable for benefiting from market-related research and the assessment of the level of satisfaction of customers with the quality and efficiency of services provided (Hundera, Duysters, Naude &Dijkhuizen, 2019).

Crovini, Santoro and Ossola (2021) have highlighted the requirements for taking informed business decisions in profitable business enterprises. The requirements place emphasis on the ability to conduct empirical market related research by using appropriate business intelligence methods. Women entrepreneurs need to develop the capacity for enhancing their level of entrepreneurial, networking and marketing skills on a regular basis by taking valuable lessons from well-established businesses. The study conducted by Fang, Chrisman and Holt (2021) shows that women entrepreneurs use these sets of skills in well-established family-owned business enterprises in all parts of the world. A similar finding has been reported in the literature by Bastian, Sidani and El Amine (2018) for countries in North Africa and the Middle East.

Ge, Abbas, Ullah, Abbas, Sadiq and Zhang (2022) have argued that the level of entrepreneurial contribution made by women to family income depends on the extent to which women are empowered and equipped to use innovative technologies such as digital marketing and social media platforms. The study has shown that the level of entrepreneurship and innovation in businesses that are operated by women can be greatly enhanced by enabling women entrepreneurs to master appropriate technologies. In this regard, there is a valuable lesson to be learned from Iranian women. Nouri (2021), Ojong, Simba and Dana (2021) and Poggesi, Mari, De Vita and Foss (2020) have pointed out that a key requirement for promoting women entrepreneurship is the commitment of local and national governments to ease administrative and tax-related bureaucratic processes. This need is most felt among women entrepreneurs in poorly developed Sub-Saharan African countries.

Satar (2022) has pointed out that successful women entrepreneurs require policy-related assistance from local and national governments. Successful women entrepreneurs are good at establishing networks and business relationships by tapping into existing resources. The research carried out by Solesvik, Iakovleva and Trifilova (2019) have identified motivational factors that are highly beneficial for promoting entrepreneurial success. Entrepreneurship is vital for generating new business opportunities and livelihood. Schumpeter (1991) has pointed out that continuous innovation and value creation are key requirements for successful entrepreneurship on a sustainable basis in all economic sectors.

All geographical regions of the City of Johannesburg are highly suitable and convenient for promoting women entrepreneurship. In order for this to happen efficiently, the City of Johannesburg needs to actively motivate and provide tangible economic incentives to entities that are committed to promoting women social entrepreneurs. The ability to promote successful women entrepreneurship is an essential requirement for sustainable economic growth and prosperity (Schumpeter, 1991). The survey conducted by D'Silva and Bhat (2022)indicates that women entrepreneurship thrives on the creation of an enabling macroeconomic environment. Local municipalities can support women entrepreneurs by simplifying administrative bureaucratic processes and by enhancing municipal services that are rendered to formally registered business enterprises. Business ethics and good governance are highly valuable for promoting sustainable profitability in emerging enterprises that are owned and operated by women entrepreneurs in all parts of Johannesburg. Alleviating poverty among South Africans requires the empowerment of women entrepreneurs. Women entrepreneurs play a critical role in building nations in all parts of the world. The study conducted in the Gulf by Ennis (2019) shows that it is essential to have the general population educated properly about the plight and basic needs of women entrepreneurs in order for women entrepreneurs to play their roles in society fully. Incentives should be provided to entities that actively promote and support women entrepreneurship. Adomako, Danso, Uddin and Damoah (2016) have shown that successful women entrepreneurs have the ability to persist in innovating ideas and finding easier and more efficient methods and techniques of service delivery. Women are highly talented in the use of digital technology

and social media. Such skills are highly valuable for promoting viability, profitability and service excellence in enterprises that are owned and operated by women entrepreneurs.

Methods and materials of study

The study was conducted in Johannesburg, South Africa with a view to assess and evaluate socioeconomic factors that affect the capacity of women entrepreneurs to remain profitable in the service industry of Johannesburg. The sample size of study was 946 business enterprises operating in the services industry of Johannesburg. Data was gathered from each one of the 946 business enterprises on 31 indicators of profitability. The study aimed to gather data from 1, 022 business enterprises that are owned and operated by women in the various geographical regions of Johannesburg. However, the questionnaire of study was completed by 922 of the 1, 022 enterprises. As such, the response rate of study was equal to 90.22%. The study assesses the level of social entrepreneurship by measuring proxy variables for the 4 pillars of social entrepreneurship (the ability to use human capital without causing harm to human rights, evidence of a well-balanced human capital, the ability to render business services profitably on a long-term basis, and the ability to render business services without causing harm to the environment and vulnerable members of local communities). This research work is based on the theory of social entrepreneurship and innovation proposed by Schumpeter (1991) in which the author has pointed out ways and means in which innovative social entrepreneurs play a key role in the alleviation of socioeconomic obstacles to development such as unemployment and abject poverty. A composite index consisting of 8 dimensions was constructed by using criteria set out for quantifying the level of social entrepreneurship by Schumpeter (1991), Satar (2022) and Samuel, White, Peattie and Thomas (2022). Accordingly, the following 8 dimensions of social entrepreneurship were used for quantifying the level of skills in social entrepreneurship for the 946 entrepreneurs who were chosen for the study:

1. Evidence of operating business profitably for at least 10 consecutive years in the past
2. Evidence of using a social innovation technique for enhancing service quality
3. Evidence of social value addition or creation
4. Evidence of willingness to accept reasonable risk in the past
5. Evidence of social passion to empower the local community
6. Evidence of trend-setting or social vision
7. The ability to use innovative business and entrepreneurial solutions to social problems
8. and the ability to alleviate poverty among local communities without causing harm to the environment and vulnerable members of the community.

The composite index was measured as a percentage score. Following that, percentage scores were split into 5 categories in order to use a 5-point ordinal scale. That is, the level of skills of each participant of study in social entrepreneurship was calculated by using a 5-point ordinal scale. Statistical methods of data analyses such as frequency tables, crosstab analyses

(Beh and Lombardo, 2021), and ordered binary logistic regression analysis (Hosmer Jr, Lemeshow & Sturdivant, 2013; Chatfield and Collins, 2018)were used for identifying key predictors of profitability in business enterprises. Standard goodness-of-fit tests (Montgomery, Peck and Vining, 2021) were used for ensuring the theoretical reliability of all estimated results of data analyses.

Results of data analysis

The raw data set consists of information gathered from a stratified random sample of size 946 retail business enterprises operating in the City of Johannesburg by the Pretoria based research institution LEAP (PTY) Ltd. The raw data set consists of 31indicators of profitability in the service industry of Johannesburg. The dependent variable of study (Y) is a measure of profitability in enterprises that belong to the service industry of Johannesburg. Variable Y is formally defined as shown below:

Y: Profitability of retail business (Yes, No)

Variable Y is dichotomous variable of study as it can only have 2 possible values (Yes, No).

Results from frequency tables

The raw data set consists of 31 socioeconomic variables that affect profitability in service industry business enterprises that are headed by women entrepreneurs. These 31 variables of study are referred to as independent variables of study. The specific aim of study was to assess and evaluate the relationship between profitability and skills in social entrepreneurship among female entrepreneurs who operate in the services economic sector or industry of Johannesburg, South Africa. The study was carried out by gathering data from a stratified random sample of size 946 business enterprises operating in the services industry of Johannesburg on 31 indicators of profitability. Stratification was done by economic sector. The regression of variable Y on the 31 independent variables of study is non-linear procedure as variable Y is dichotomous (Montgomery, Peck & Vining, 2021). Standard goodness-of-fit tests are used for ensuring the theoretical reliability of all estimated results of data analyses.

Figure 1 shows a pie chart for profitability in the 946 business enterprises that were chosen for the survey. The figure shows that 84.78% of businesses were profitable, whereas the remaining 15.22% of businesses were not profitable.

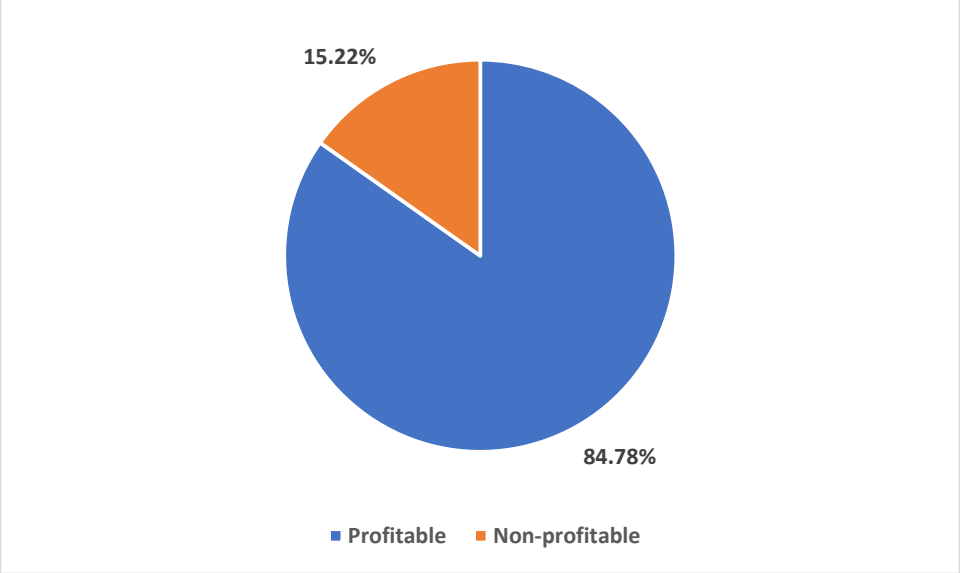

Figure 1: A pie chart for profitability in business enterprises

Table 1 shows the personal characteristics of the 946 businesses that were chosen for the study. The table shows that about 85% of businesses were profitable, whereas the remaining 15% of businesses were not profitable.

About 7% of participants were 30 years old or younger. About 17% were 31 to 40 years old. About 54% were 41 to 50 years old. About 16% were 51 to 60 years old. About 5% were 61 years old or older. The results show that the age category 41 to 50 years is the most productive age category for female entrepreneurs. These results are fairly similar to age distributions reported by other researchers in Sub-Saharan African countries such as Kenya and Nigeria (Ogada, Wadongo &Omondi, 2021; Ojong, Simba & Dana, 2021).

About 5% of participants had postgraduate level education. About 15% of them had undergraduate level education. About 33% of them had diploma level education. About 37% of them had certificates. About 10% of them had Grade 12 level education or less. About 13% of participants had acquired formal education in the field of business sciences. About 57% of participants were married. About 22% of them were single. About 11% of them were divorced. About 4% of them were widowed. About 7% of were living together with their partners.

About 4% of businesses had operated for 5 years or less at the time of the study. About 8% of them had operated for 6 to 10 years. About 52% of them had operated for 11 to 15 years. About 21% of them had operated for 16 to 20 years. About 15% of them had operated for 21 years or more. The above estimates are fairly similar to the distribution reported by other researchers in Sub-Saharan African countries (Ogada, Wadongo& Omondi, 2021; Ojong, Simba&Dana, 2021; Poggesi, Mari, De Vita& Foss, 2020; Ribeiro, Adam, Kimbu, Afenyo-Agbe, Adeola, Figueroa-Domecq& de Jong, 2021).

Table 1: Personal characteristics of women entrepreneurs (n=946)

Personal profiles of business owners	Frequency counts and percentages
Profitability of business enterprise(Y)	Profitable: 802 (84.78%) Not profitable: 144 (15.22%)
Age category of business owner	30 years or younger: 66 (6.98%) 31 to 40 years: 161 (17.02%) 41 to 50 years: 515 (54.44%) 51 to 60 years: 155 (16.38%) 61 years or older: 49 (5.18%)
Highest level of formal education of business owner	Postgraduate: 47 (4.97%) Undergraduate: 141 (14.90%) Diploma: 313 (33.09%) Certificate: 352 (37.21%) Grade 12 or less: 93 (9.83%)
Education of business owner in the field of business sciences	Yes: 126 (13.32%) No: 820 (86.68%)
Marital status of business owner	Single: 205 (21.67%) Married: 539 (56.98%) Divorced: 101 (10.68%) Widowed: 38 (4.02%) Living together: 63 (6.66%)
Number of years of service of business	5 years or less: 35 (3.70%) 6 to 10 years: 74 (7.82%) 11 to 15 years: 496 (52.43%) 16 to 20 years: 198 (20.93%) 21 years or more: 143 (15.12%)

Figure 1 shows a pie chart for the profitability of business enterprises. The pie chart shows that about 85% of the 946 businesses were profitable.

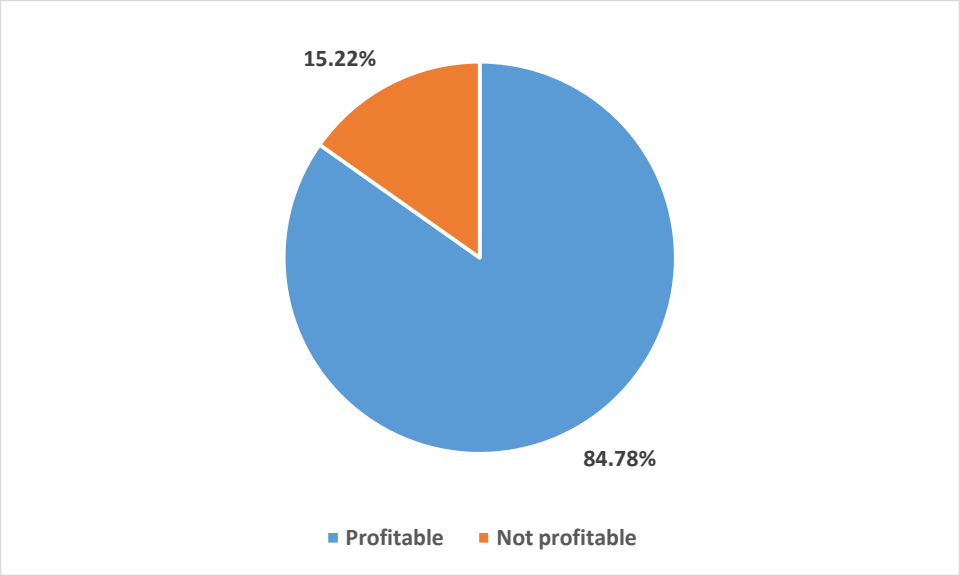

Figure 1: Profitability of businesses

Figure 2 shows a bar chart for the ages of the 946 participants of study.

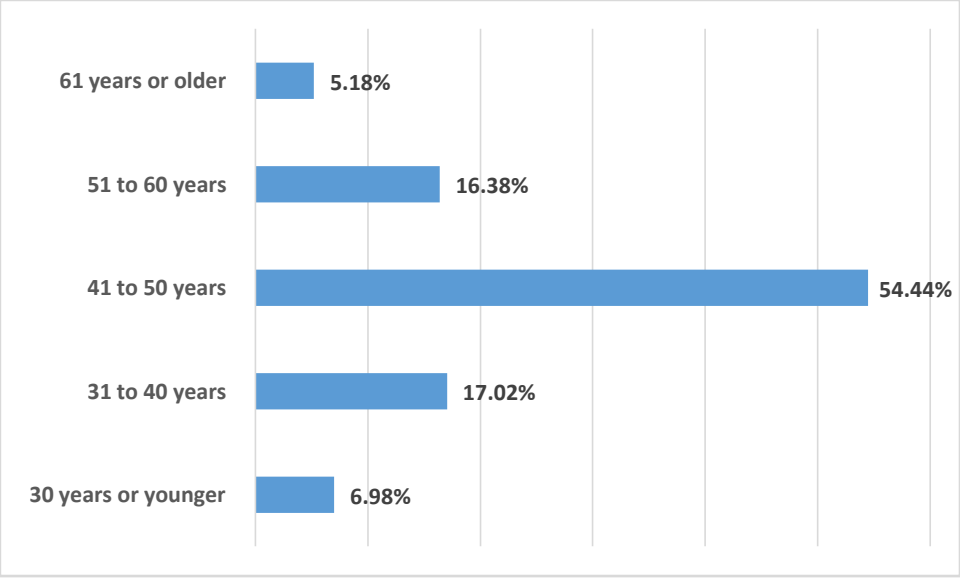

Figure 2: Ages of entrepreneurs

Figure 3 shows a bar chart for the highest level of formal education of the 946 participants of study.

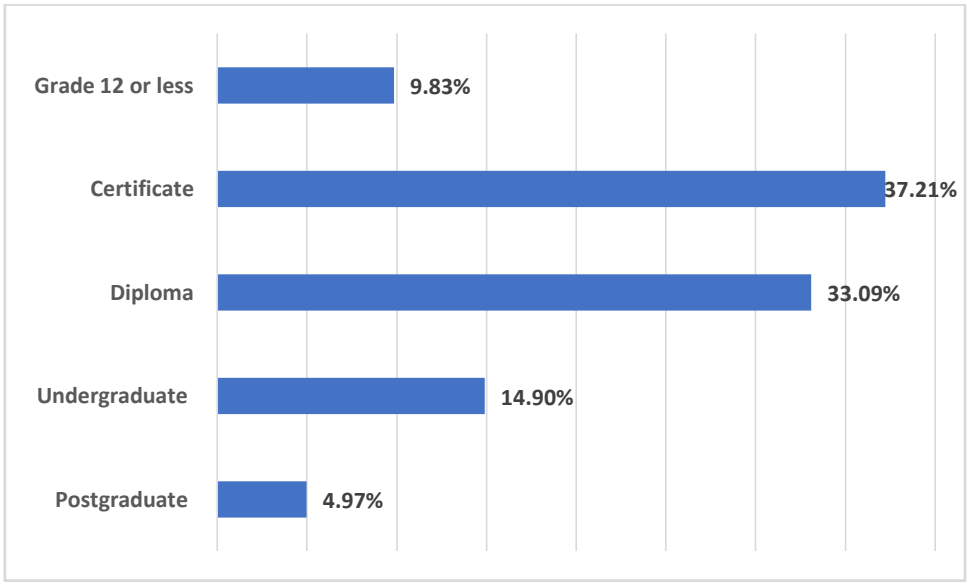

Figure 3: Level of formal education of entrepreneurs

Figure 4 shows a bar chart for the marital status of the 946 participants of study.

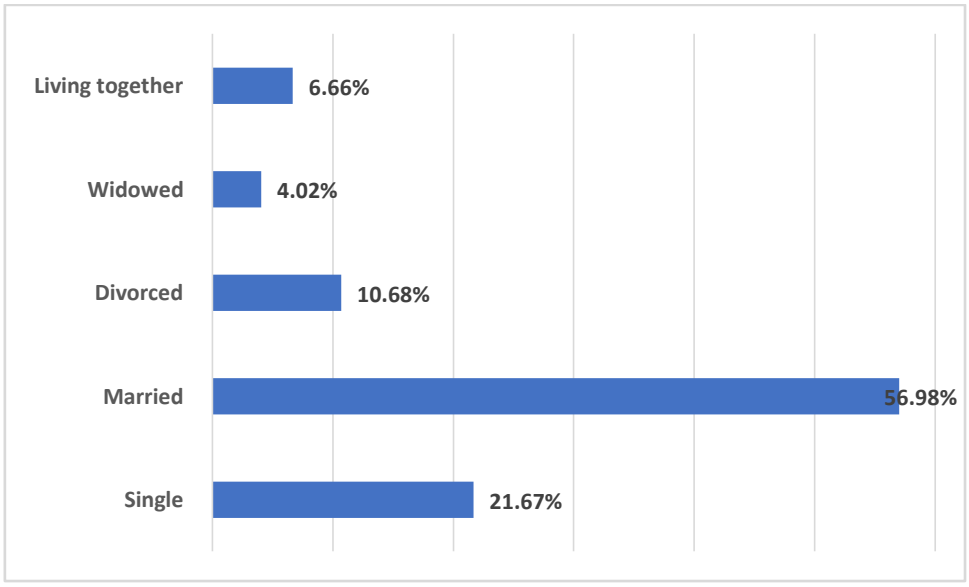

Figure 5: Marital status of participants

Figure 6 shows a bar chart for the number of years of business operation of the 946 businesses chosen for the study.

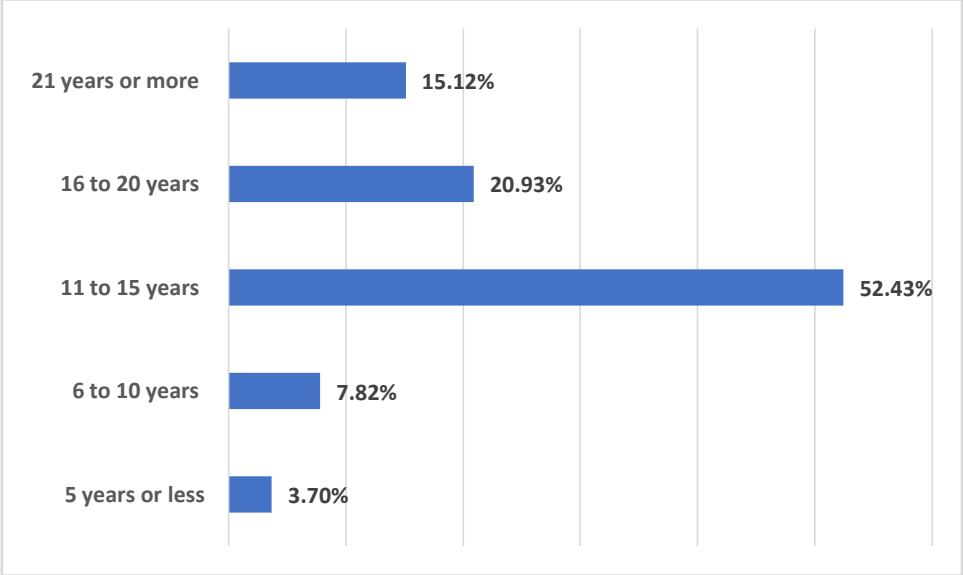

Figure 6: Number of years of business operation of business enterprises

Table 2 shows that English is the most widely spoken language of business and commerce in Johannesburg (28%), followed by isi Zulu (22%), Afrikaans: 151 (15.96%), isi Xhosa (13%), and Sesotho (12%). All 11 official South African languages are represented in the sample. About 55% of participants were African. About 20% were Asian. About 12% were coloured. About 13% were white. About 14% of businesses employed 2 or fewer people. About 64% of them employed 3 to 5 people. About 5% of them employed 6 to 10 people. About 18% of them employed 11 or more people. The estimates displayed in the table are in agreement with national and provincial mid-year estimates reported by Statistics South Africa (2022).

Table 2: Language, race and number of employees (n=946)

Distribution of language, race and number of employees	Frequency counts and percentages
Language used most often for rendering service to customers	Afrikaans: 151 (15.96%) English: 265 (28.01%) Sepedi: 25 (2.64%) Sesotho: 111 (11.73%) Setswana: 11 (1.16%) Tshivenda: 12 (1.27%) Xitsonga: 11 (1.16%) isi Xhosa: 123 (13.00%)

	isi Zulu: 208 (21.99%) isiNdebele: 21 (2.22%) siSwati: 8 (0.85%)
Race categories of owners of business enterprises	African: 521 (55.07%) Asian: 192 (20.30%) Coloured: 111 (11.73%) White: 122 (12.90%)
Number of employees working in business enterprises	2 or less: 128 (13.53%) 3 to 5: 606 (64.06%) 6 to 10: 46 (4.86%) 11 or more: 166 (17.55%)

Figure 7 shows a bar chart for the race categories of participants who were chosen for the study.

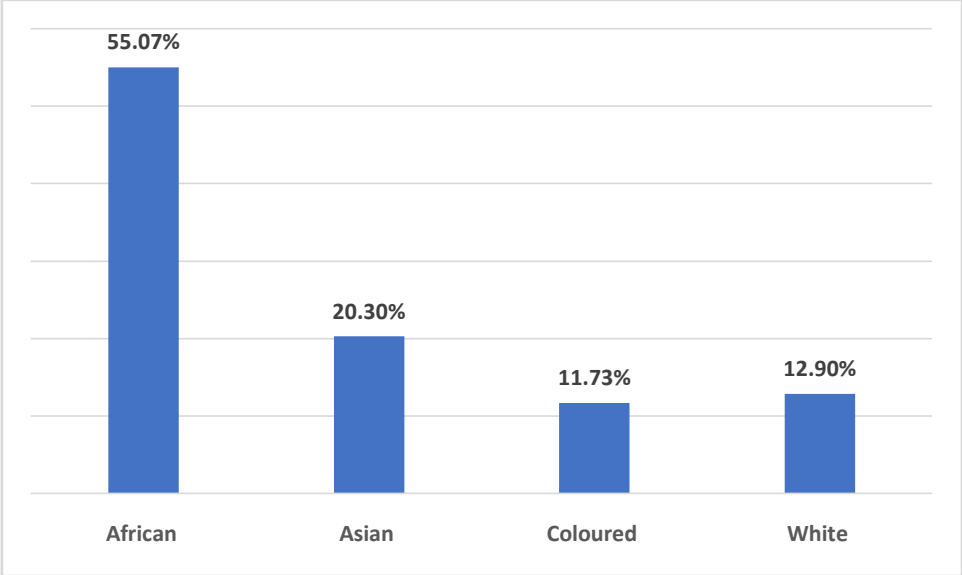

Figure 7: Race categories of owners of business enterprises

Figure 8 shows a bar chart for the number of employees working in the various business enterprises chosen for the study.

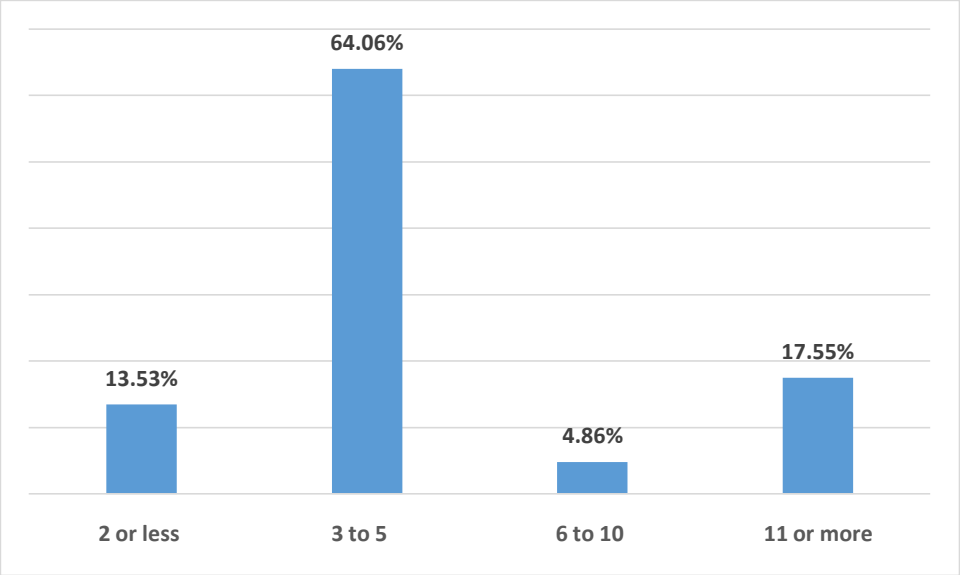

Figure 8: Number of employees working in business enterprises

Table 3 shows that minimarkets account for 12% of all businesses. Textile or footwear services account for 12% of businesses. Retail services account for 8% of businesses. Secretarial services account for 6% of businesses. Restaurants account for 5% of businesses. Fast food outlets account for 5% of businesses. Food and dairy products account for 5%. The estimates displayed in the table are in agreement with estimates reported by Statistics South Africa (2022).

Table 3: Types of services rendered to customers (n=946)

Types of services rendered to customers	Frequency counts and percentages
Agricultural services	30 (3.17%)
Architectural services	4 (0.42%)
Bed & Breakfast services	19 (2.01%)
Book shop	4 (0.42%)
Building materials shop	11 (1.16%)
Butchery	9 (0.95%)
Domestic services	32 (3.38%)
Educational services	15 (1.59%)
Electrical shop	13 (1.37%)

Engineering services	19 (2.01%)
Entertainment services	5 (0.53%)
Fast food outlet	48 (5.07%)
Film and television services	7 (0.74%)
Financial services	31 (3.28%)
Food and dairy products	45 (4.76%)
Furniture and appliances	22 (2.33%)
Furniture removal services	4 (0.42%)
Hairdresser's shop	23 (2.43%)
Health care services	23 (2.43%)
ICT services	37 (3.91%)
Import and export services	10 (1.06%)
Labour brokering services	11 (1.16%)
Legal services	16 (1.69%)
Management consultancy services	8 (0.85%)
Media services	5 (0.53%)
Medical services	6 (0.63%)
Minimarket	111 (11.73%)
Non-Governmental Organisation	6 (0.63%)
Optometrist's shop	7 (0.74%)
Real estate services	26 (2.75%)
Religious services	4 (0.42%)
Restaurant	45 (4.76%)
Retail services	71 (7.51%)
Secretarial services	56 (5.92%)
Stationeries shop	26 (2.75%)
Tailor's shop	5 (0.53%)
Telephone services	9 (0.95%)
Textile or footwear	117 (12.37%)
Tour operator	6 (0.63%)

Total	946 (100.00%)

Table 4 shows that about 53% of participants possessed adequate skills in social entrepreneurship. About 57% of participants possessed adequate skills in business management, marketing and networking skills based on the set of criteria set out for quantifying the level of social entrepreneurship by Schumpeter (1991), Satar (2022) and Samuel, White, Peattie and Thomas (2022). These estimates are in line with estimates published for developing nations by the World Bank (2021, 2022).

Table 4: Assessment of skills in social entrepreneurship (n=946)

Assessment of entrepreneurial skills	Frequency counts and percentages
Level of skills in social entrepreneurship	Good: 46 (4.86%) Above average: 140 (14.80%) Average: 313 (33.09%) Below average: 354 (37.42%) Poor: 93 (9.83%)
Level of managerial skills	Good: 47 (4.97%) Above average: 138 (14.59%) Average: 317 (33.51%) Below average: 351 (37.10%) Poor: 93 (9.83%)
Level of marketing skills	Good: 48 (5.07%) Above average: 140 (14.80%) Average: 315 (33.30%) Below average: 350 (37.00%) Poor: 93 (9.83%)
Level of networking skills	Good: 48 (5.07%) Above average: 139 (14.69%) Average: 315 (33.30%) Below average: 351 (37.10%) Poor: 93 (9.83%)

Figure 9 shows a bar chart for the level of skills in social entrepreneurship possessed by the 946 participants of study.

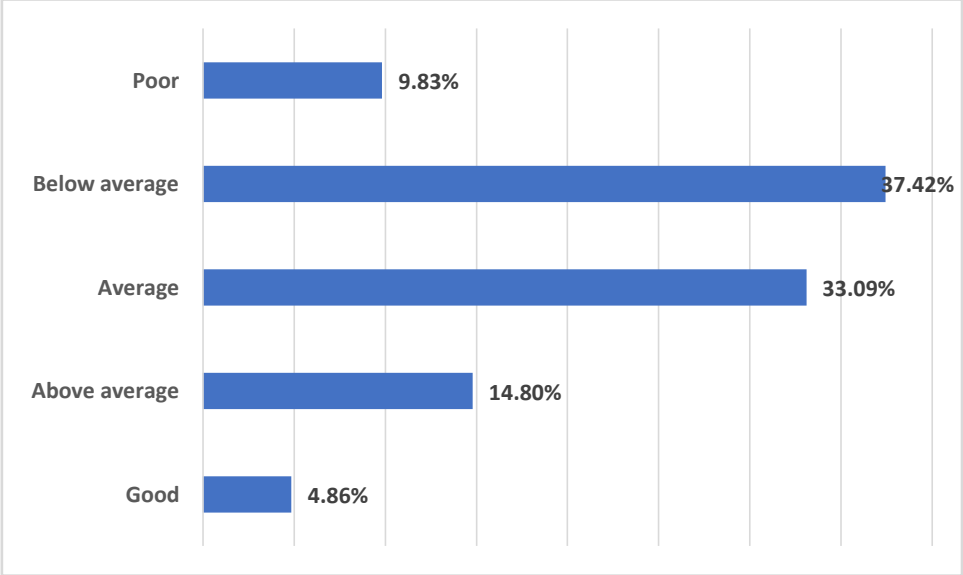

Figure 9: Level of skills in social entrepreneurship

Figure 10 shows a bar chart for the level of managerial skills of the 946 participants of study.

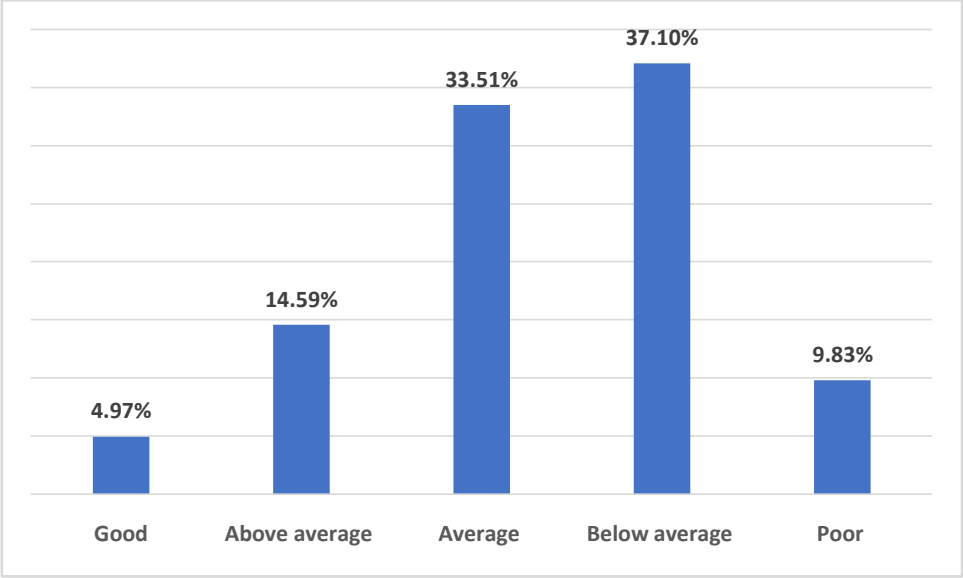

Figure 10: Level of managerial skills

Figure 11 shows a bar chart for marketing skills of the 946 participants of study.

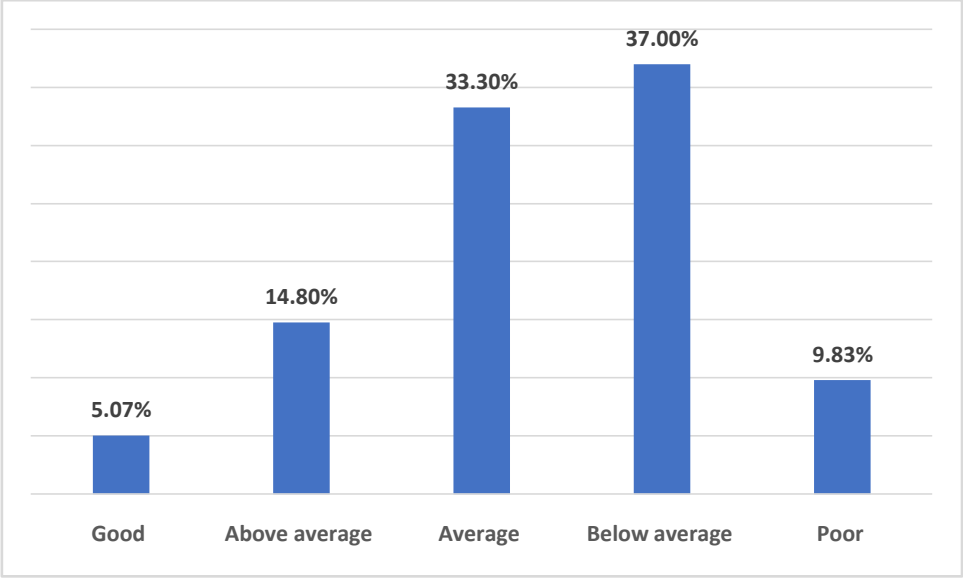

Figure 11: Level of marketing skills

Figure 12 shows a bar chart for the level of networking skills of the 946 participants of study.

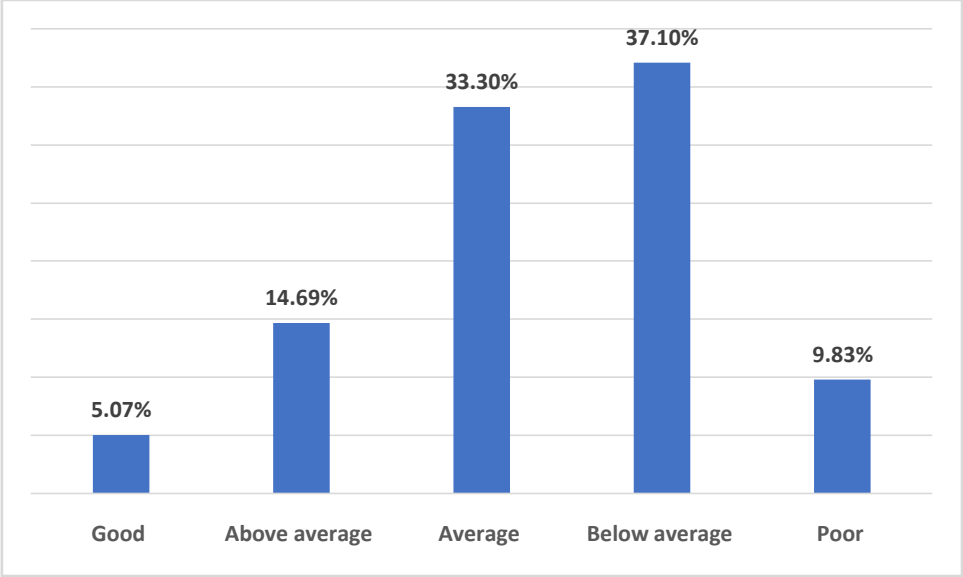

Figure 12: Level of networking skills

Table 5 shows that about 53% of participants use social media for rendering business related services to their customers and clientele. About 54% of participants had access to the internet. The most prevalent source of internet connection was internet connection at the workplace. About 13% of participants used internet connections at home for conducting business activities. About 53% of participants possessed adequate skills in the use of computers for conducting business activities and rendering business related services to customers. The World Bank (2021, 2022) has reported similar findings for Sub-Saharan African countries.

However, the figures fare below similar figures obtained in a study conducted in India by Singh (2019) for similar purposes. The implication is that there is a need for capacity building training programmes that are directed at poorly skilled women entrepreneurs working in and around Johannesburg.

Table 5: Access to the internet and level of computer skills (n=946)

Access to the internet and level of computer skills	Frequency counts and percentages
Use of social media for rendering services	Yes: 506 (53.49%) No: 440 (46.51%)
Access to the internet	Yes: 509 (53.81%) No: 437 (46.19%)
Source of internet connection	Cellphone: 37 (3.91%) Internet café: 98 (10.36%) Internet at home: 122 (12.90%) Internet at work: 615 (65.01%) Others: 74 (7.82%)
Level of computer skills	Good: 46 (4.86%) Above average: 140 (14.80%) Average: 313 (33.09%) Below average: 354 (37.42%) Poor: 93 (9.83%)

Table 6 shows that about 13% of participants have attended at least one training session offered by the Small Enterprise Development Agency (SEDA) in the past. These estimates are fairly similar to figures reported in the study carried out by Worku (2022) in Gauteng Province. The implication is that there is a need for awareness campaigns and education about the importance of attending training sessions that are offered to nascent and emerging business enterprises by SEDA.

About 34% of participants needed between 1 and 5 million Rand for starting up their businesses. About 22% of participants needed between 5 and 10 million Rand for starting up their businesses. About 55% of participants raised their start-up capitals from their own families. About 21% of participants raised their start-up capitals from their own savings. These estimates are in agreement with similar figures by Mago and Modiba (2022), Simatele and Kabange (2022) and Solesvik, Iakovleva and Trifilova (2019). The authors have pointed out that a culture of saving money at household level is a critical requirement for

entrepreneurial success and for starting up a profitable business venture. The table shows that about 86% of participants were actual owners of their businesses. About 19% of participants owned their business premises. The study found a significant relationship between profitability and ownership of businesses (observed chi-square value = 831.8991; P=0.0000). It also found a significant relationship between profitability and ownership of business premises (Observed chi-square value = 17.7782; P=0.0000). Similar findings have been reported in the literature by Bastian, Sidani and El Amine (2018).

Table 6: Attendance of training programmes (n=946)

Attendance of training programmes	Frequency counts and percentages
Attendance of training programmes offered by SEDA and the DTIC	Yes: 117 (12.37%) No: 829 (87.63%)
Amount of start-up capital in Rand	R500, 000 or less: 186 (19.66%) R500, 001 to R1 million: 126 (13.32%) R1 million to R5 million: 322 (34.04%) R5 million to R10 million: 210 (22.20%) R10 million or more: 102 (10.78%)
Source of start-up capital	Family: 518 (54.76%) Loan: 125 (13.21%) Partnership: 107 (11.31%) Savings: 196 (20.72%)
Ownership of business	Yes: 817 (86.36%) No: 129 (13.64%)
Ownership of business premises	Yes: 179 (18.92%) No: 767 (81.08%)

Figure 13 shows a bar chart for the amounts of start-up capitals of businesses in Rand

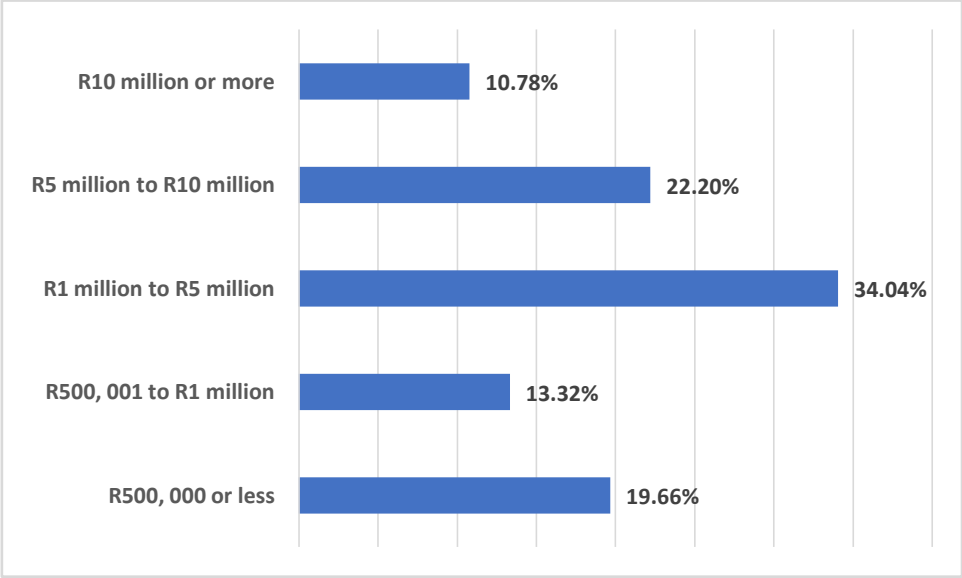

Figure 13: Amounts of start-up capitals of businesses in Rand

Table 7 shows that about 54% of participants were capable of doing their own bookkeeping. Only about 14% of participants used ecommerce methods and applications in the course of doing business with their customers. About 53% of participants used laptops for conducting business services on a regular basis. About 52% of participants used online services for rendering services to their customers on a regular basis. About 53% of participants were capable of ordering goods and merchandise from wholesale suppliers on credit. These findings are fairly similar to findings reported in the literature by Aneke, Derera and Bomani (2017).Baron (2008) has pointed out that women entrepreneurs need to be able to use appropriate technology for remaining profitable in the market. In this study, the ability to use appropriate online methods, digital equipment, laptops and ecommerce methods and applications is highly helpful for remaining profitable.

Table 7: Level of skills in bookkeeping and using online services (n=946)

Level of skills in bookkeeping and online services	Frequency counts and percentages
Level of skills in bookkeeping	Yes: 515 (54.44%) No: 431 (45.56%)
Use of ecommerce methods for conducting business	Yes: 127 (13.42%) No: 819 (86.58%)
Use of laptop for providing services to	Yes: 497 (52.54%)

customers on a regular basis	No: 449 (47.46%)
Use of online services for providing services to customers on a regular basis	Yes: 493 (52.11%) No: 453 (47.89%)
Ability to order goods and products on credit from wholesale suppliers	Yes: 498 (52.64%) No: 448 (47.36%)

Table 8 assesses the ability of participants to produce their own business plans. The table shows that about only 15% of participants were capable of producing their own business plans. Only about 14% of participants were capable of conducing their own audits. About 17% of participants had applied for business loans at least once in the past from commercial banks. About 12% of participants had succeeded in securing business loans at least once in the past. Studies conducted in the past by Fatoki (2018), Worku (2022), Ayatakshi-Endow and Steele (2021), Bendell, Sullivan and Hanek (2020), Bullough, Guelich, Manolova and Schjoedt (2022), Chiplunkar and Goldberg (2021), Newman and Alvarez (2022) and Kalnins and Williams (2014) have found that women entrepreneurs are often disadvantaged in terms of securing business loans on favourable terms from commercial banks and microfinance institutions. The authors have cited reasons such as inability to produce sound business plans for consideration by money lenders, inability to produce collateral, and inadequate to compete with well-established enterprises.

Table 8: Ability to produce a business plan (n=946)

Ability to produce a business plan	Frequency counts and percentages
Ability to produce a business plan	Yes: 139 (14.69%) No: 807 (85.31%)
Ability to conduct auditing	Yes: 135 (14.27%) No: 811 (85.73%)
Experience of applying for a business loan at least once in the past from a commercial bank	Yes: 161 (17.02%) No: 785 (82.98%)
Experience of a successful business loan application at least once in the past from a commercial bank	Yes: 109 (11.52%) No: 837 (88.48%)

Table 9 displays observed chi-square values and probability values obtained from crosstab analyses. The table assesses the strength of associations between various socioeconomic characteristics and profitability. The results are used for screening factors that are associated

with profitability at the 5% level of significance. For each test, the expected value the chi-square random variable is larger than 5. This confirms that the estimates displayed in the table are theoretically reliable (Beh & Lombardo, 2021; Montgomery, Peck & Vining, 2021).

Table 9: Table of two-by-two associations (n=946)

Socioeconomic factors that are associated with profitability of retail businesses	Chi-square value	Probability value
Ownership of business	831.8991	0.0000
Duration of business operation	299.567	0.0000
Level of entrepreneurial skills	133.0992	0.0000
Level of business management skills	132.5046	0.0000
Level of formal education	131.8527	0.0000
Regular use of laptop	130.5234	0.0000
Level of computer literacy	130.5126	0.0000
Use of online methods of conducting retail business	130.4621	0.0000
Level of networking skills	128.4617	0.0000
Use of social media for business	126.6609	0.0000
Use of whole suppliers for ordering merchandise	125.5115	

		0.0000
Level of marketing skills	125.1564	0.0000
Ease of access to the internet	120.5479	0.0000
Level of bookkeeping skills	116.5000	0.0000
Type of business	46.9031	0.1520
Race category of entrepreneur	35.2763	0.0000
Startup capital source	32.2074	0.0000
Ability to draw up business plan	26.5563	0.0000
Level of auditing skills	25.5895	0.0000
Experience of applying for at least one business loan in the past from a commercial bank	24.3928	0.0000
Attendance of training programmes offered by SEDA and the DTIC	23.9723	0.0000
Providing ecommerce related services to customers	21.1711	0.0000
Business education	20.9403	0.0000
Experience of a successful business loan application in the past from a commercial bank	19.5338	0.0000
Payment of tax to SARS on a regular basis	17.7782	0.0000
Startup capital amount	12.8876	0.0120
Language used most for conducting business	12.3227	0.2640
Number of employees	2.3712	0.4990
Age of entrepreneur	7.5865	0.1080
Source of access to the internet	6.1646	0.1870

Marital status	1.9599	0.7430

The results shown in Table 9 indicate that the top 5 influential determinants of profitability are the following factors:

1. Ownership of business
2. Duration of business operation
3. Level of entrepreneurial skills
4. Level of business management skills
5. Level of formal education

The results shown above were used for performing ordered binary logistic regression analysis (Hosmer Jr, Lemeshow & Sturdivant, 2013). Table 10 shows odds ratios estimated from ordered binary logistic regression analysis. Table 10 shows 3 highly significant factors that affect profitability in business enterprises at the 5% level of significance. The probability values of each one of the 3 influential factors are less than 5% or 0.05.

Table 10: Predictors of profitability in business enterprises (n=946)

Predictors of profitability	Odds Ratio	P-value	95% C. I. for OR
Ownership of business	3.94	0.0000	(2.32, 6.71)
Duration of business operation	2.79	0.000	(1.99, 3.90)
Level of entrepreneurial skills	1.93	0.000	(1.37, 2.71)
Level of business management skills	1.30	0.104	(0.95, 1.79)
Level of formal education	1.28	0.462	(0.67, 2.45)

The results displayed in Table 10 show that profitability is significantly influenced by the following 3 factors:

1. Ownership of business
2. Duration of business operation
3. Level of entrepreneurial skills
4.

Interpretation of odds ratios

In this study, odds ratios are used an econometric measure of effect. Significant odds ratios have magnitudes that are larger than the number 1. They also have probability values that fall

below 0.05 at the 5% level of significance. They have 95% confidence intervals that do not contain the number 1 (Hosmer Jr, Lemeshow & Sturdivant, 2013).

Interpretations are provided for the 3 significant odds ratios of study as shown below:

The odds ratio of the variable "Ownership of business" is 3.94. This indicates that a business that is operated by an actual owner of the business is 3.94 times more profitable in comparison with a business that is operated by an employed manager.

The odds ratio of the variable "Duration of business operation" is 2.79. This indicates that a business that has been operated for more than 20 years or more is 2.79 times more profitable in comparison with a business that has been operated for 20 years or less.

The odds ratio of the variable "Entrepreneurial skills" is 1.93. This indicates that participants with adequate skills in social entrepreneurship are 1.93 times more profitable in comparison with participants with inadequate skills in social entrepreneurship.

Goodness-of-fit tests for the fitted ordered binary logistic regression model

Two goodness-of-fit tests were used for ascertaining the theoretical reliability of the fitted ordered binary logistic regression model. These were the classification table and the Hosmer-Lemeshow goodness-of-fit test (Hosmer Jr, Lemeshow & Sturdivant, 2013). The percentage of overall correct classification was 89.04%, a figure which is larger than the cut-off point of 75%. The probability value from the Hosmer-Lemeshow goodness-of-fit test was equal to 0.1094, a figure which is larger than 0.05. These findings show that the fitted model and findings are theoretically reliable enough.

Discussion of results

The main finding of the study is that the level of profitability in business enterprises that are owned and operated by women entrepreneurs working in Johannesburg and the surrounding areas is influenced by ownership of business enterprises (businesses that are operated by actual owners are more profitable in comparison with businesses that are operated by employed managers), a lengthy duration of business operation (businesses that have remained in business for 20 years or more are relatively more profitable in comparison with businesses that are young), and high levels of skills in social entrepreneurship. Similar findings have been reported by the World Bank (2021) for South Africa. The report shows that it is necessary to create an enabling and flexible labour market in order to grow the economy at a much faster pace. The report provides various reasons why it is beneficial to empower women entrepreneurs.

The research work carried out by Anderson and Ojediran (2022) has shown that women entrepreneurs need to be protected and supported actively in order for society to grow, develop and achieve higher levels of productivity. This need is especially paramount in Sub-Saharan African countries. The authors have shown that women are an integral part of all emerging economies.

Bullough, Guelich, Manolova and Schjoedt (2022) have argued that poorly skilled and poorly resourced South African female entrepreneurs are disadvantaged in terms of working capital, start-up capital, business expansion capital, access to business loans, auditing and accounting skills, entrepreneurial skills, marketing skills, networking skills, access to well-established businesses, access to local and international businesses. Women entrepreneurs are exposed to male domination, lack of recognition, and the denial of equality rights and privileges. Researchers have shown that legislative tools are required to protect the basic entrepreneurial rights of women entrepreneurs in developing nations.

Research work carried out by Chiplunkar and Goldberg (2021), Newman and Alvarez (2022) and Kalnins and Williams (2014) shows that women entrepreneurs work relatively much harder in comparison with male entrepreneurs in various economic sectors. The authors have shown that women entrepreneurs are often subjected to relatively harsher requirements and conditions including tax assessment in comparison with male entrepreneurs. Business enterprises that are owned and operated by women are obliged to pay relatively more in comparison with comparative businesses that are owned and operated by men. The findings show that women entrepreneurs have to cope with and overcome business related obstacles as well as gender-related obstacles in terms of winning business contracts, having access to services that are essential for business, tax assessment, license renewal, ordering merchandise from wholesale suppliers, the acquisition of skills-based training opportunities, and securing working capital and business loans from commercial banks.

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