

**Ethiopian Economics Association  
(EEA)**



***Determinants of Sustainability of Women  
Owned Micro, Small and Medium Enterprises  
(MSMEs): Evidence from Manufacturing and  
Hospitality Industry in Ethiopia***

**Research Team: Nigatu Regassa, Emebet Mahmoud, Aseffa Seyoum, Tariku Dejene, Tesfaye Zeleke, Solomon Tsehay, Aynalem Megersa, Matebu Tadesse, Befekadu Ejeta and Dilu Shaleka**

**Policy Working Paper 20/2023**

***October 2023***

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## Table of Contents

LIST OF FIGURES .....	iii
LIST OF TABLES.....	iii
LIST OF ABBREVIATIONS & ACRONYMS .....	iii
EXECUTIVE SUMMARY .....	i
1. INTRODUCTION .....	1
2. STATEMENT OF THE PROBLEM .....	3
3. OBJECTIVES OF THE STUDY .....	5
4. SCOPE OF THE STUDY .....	6
5. LITERATURE REVIEW .....	6
5.1 MSMEs, and MSMEs Related Policies in Ethiopia.....	6
5.2 Theoretical Review .....	9
5.3 Empirical Review.....	11
5.4 Conceptual Framework.....	14
6. RESEARCH METHODOLOGY.....	15
6.1 Description of the Study Area.....	15
6.2 Study Design and Approaches .....	18
6.3 Data Sources .....	18
6.4 Sampling Design.....	18
6.5 Data Collection Procedures.....	20
6.6 Measurement of Outcome and Explanatory Variables .....	22
6.7 Method of Data Analysis .....	24
6.8 Ethical Considerations .....	25
7. RESULTS AND DISCUSSION .....	25
7.1 Characteristics of the MSMEs and Survey Respondents .....	25
7.2 MSMEs growth indicators .....	30
7.3 Type of Support for MSMEs .....	31
7.4 Determinants of Sustainability of MSMEs .....	33
7.5 Challenges Reported by MSMEs.....	45
8. CONCLUSION AND RECOMMENDATIONS.....	56
REFERENCES .....	60
ANNEX 1: MODEL ADEQUACY.....	66
ANNEX 2: SCHEMA SHOWING QUALITATIVE DATA SOURCES AND METHODS OF DATA COLLECTION.....	67
ANNEX 3: MULTICOLLEANIARITY .....	68
ANNEX 4: DISTRIBUTION OF THE OUTCOME VARIABLES .....	69
ANNEX 5: BIVARIATE TABLES.....	70

## LIST OF FIGURES

Figure 1: Conceptual framework for key predictors of success of women owned MSMEs in Addis Ababa. ....	15
Figure 2: Map of the study areas.....	17
Figure 3: The effects of COVID-19 on sustainability.....	51

## LIST OF TABLES

Table 1: Description of variables .....	23
Table 2: Background characteristics of the MSMEs surveyed n=564.....	27
Table 3: Operational profiles of the MSMEs, n=564.....	28
Table 4: Socio-demographic characteristics of the respondents (managers of MSMEs), n=564.....	29

## LIST OF ABBREVIATIONS & ACRONYMS

DoI	Diffusion of Innovations
DHS	Demographic and Health Surveys
FDRE	Federal Democratic Republic of Ethiopia
GDP	Gross Domestic Product
GDI	Gender and Development Index
GTP	Growth and Transformation Plan
GII	Gender Inequality Index
FAO	Food and Agriculture Organization
OR	Odds Ratio
MSMEs	Micro, Small- and Medium- Enterprises
MSEs	Medium and Small Enterprises
MoALR	Ministry of Agriculture and Livestock Resources
MoCT	Ministry of Culture and Tourism
MoUDH	Ministry of Urban Development and Housing
MoTI	Ministry of Trade and Industry
SGDs	Sustainable Development Goals
UN	United Nations
UET	Upper Echelon Theory

## EXECUTIVE SUMMARY

During the last few decades, significant attention has been given to the development of small and medium scale enterprises in developing countries because of their potential for diversification and economic transition as well as job creation. Micro, Small- and Medium- Enterprises (MSMEs) are also extremely important to achieve Sustainable Development Goals (SDGs) and to empower women in developing economies. Currently, MSMEs in Ethiopia are becoming important vehicles in creating job opportunities for millions of unemployed youths.

This study was conducted primarily to examine the sustainability of women owned MSMEs and its determinants in Ethiopia's hospitality and manufacturing industries. The study covered five major areas with regards to sustainability of the MSMEs: changes in human resources of the survived MSMEs, the changes in services and products diversification; changes in income/revenue generation over the last few years; and changes in asset and capital formation. Key determinants of survivorship of MSMEs owned by women in the manufacturing and hospitality industries were examined as well as major challenges and gaps associated with the potential to grow and thrive.

The study was conducted in five major cities of Ethiopia including Addis Ababa, Hawassa, Bahir Dar, Jima and Dire Dawa. The required data were generated from both primary and secondary sources. As to the primary source, information was collected from relevant survey of MSMEs using structured questionnaire and qualitative data through focus group discussion and key informant interviews. The study employed cross sectional design, with both qualitative and quantitative approaches. Data were collected from a total sample size of 564 eligible MSMEs from the five cities out of the planned sample size of 600, resulting in 94 % response rate. Random selection was used from the available MSMEs.

The study measures sustainability in terms of five distinct but interdependent variables: Service diversification, income/revenue growth, changes in human resources and amount of increase in capital and assets. The five outcome variables were measured by subtracting the reported amount at the establishment time from the current amount reported at the survey period. Due to the categorical nature of the five outcome variables, binary logistic regression was used to examine the key determinants.

More than half of the MSMEs were aged 3-5 years (56.9%), 37.6% of them were aged 6-10 years and only 5.5% of the MSMEs were functional for more than a decade. A little more than half (52.7%) of the MSMEs were deemed to be "small".

The distribution of the MSMEs by sector indicates dominance of manufacturing-food (20%), textile and garment design (19.5%) and Tourism and Hospitality (20.7%). Manufacturing – leather, traditional garment and ornaments, and metal works and engineering accounted for smaller proportion of the MSMEs surveyed. More than 60 percent of the MSMEs were reported to be founded by less than five persons, and about 35 percent of them were founded by five to ten people. Close to 90 percent of the MSMEs (n=497) were established by the founder’s own capital. The chance of securing credit from the microfinance/bank and relatives/friends was very low (19% and 11%, respectively). While about 81 percent of the MSMEs were reported to be fully functional, the remaining were partially operational. It was reported that more than 75 percent (n=429) of the MSMEs had work premises rented from the government.

The study found that a range of variables determine the sustainable growth of women owned MSMEs in Ethiopia. The results of binary logistic regression analysis indicated changes in profitability was higher for MSMEs with male managers compared to female managers, being medium sized enterprise is more advantageous in making profit. The number of products and services that enterprises offer is positively impacted by age of the MSMEs, working in traditional garment and ornaments, experience in similar business area before establishing the MSME. The study concluded that being male managers, working in manufacturing -Textile and garment design, and traditional garment and ornaments, operating for greater than 5 days per week, and use of technology increased the likelihood of changes in human resources. On the other hand, change in asset was determined by the level of support the MSMEs got from the government. Whereas the changes in capital were higher for MSMEs with more than 5 years of experience, those in leather, and wood and bamboo, having smaller number of founders (less than 5), those with work premises owned by families, and those with the number of supports received from NGOs.

With regards to challenges, analysis of data from both qualitative and quantitative data witness that most MSMEs are constrained by a range of challenges, which at times tempted their survival. From the quantitative analysis, it was observed that inflation appeared to be the most commonly reported challenge, where about 66.8% strongly agreed to such challenges. About 38.8 percent of the MSMEs strongly agreed to lack of access to working capital, lack of adequate support from concerned stakeholders to enhance financial management. The analysis of the qualitative data indicated that the survival of the MSMEs is challenged by at least five major factors: 1) challenge to get working capital loan due to unattainable

requirement set by financial institutions; 2) the soaring cost of raw materials from time to time and their unavailability and shortage; 3) infrastructural problems related to unsuitable work place assignment, unavailability and disruption of basic utilities such as electric power, water supply and decent toilet; 4) limited market linkages, and 5) COVID-19 induced disruption of work that resulted in loss of income.

The sustained growth of women owned MSMEs is impacted by a range of variables. Increment in profitability was higher for MSMEs with female managers compared to male managers, being medium sized enterprise is more advantageous in making profit. The number of products and services that enterprises offer, age of the MSMEs, experience in similar business area before establishing the MSME were also found to have positive effect on profitability of MSMEs. The study concluded that being male managers, working in manufacturing -Textile and garment design, and traditional garment and ornaments, operating for greater than 5 days per week, and use of technology increased the likelihood of increase in human resources. On the other hand, change in asset was determined by the level of support the MSMEs got from the government. On the other hand, the changes in capital were higher for MSMEs with more than 5 years of experiences, for those SMEs which engaged in leather, and wood and bamboo sectors, having smaller number of founders (less than 5), for those with work premises owned by families, and those which received more supports from NGOs.

Given the high and increasing cost of raw materials, the concerned authorities should make all efforts in changing the production line that can use affordable raw materials. The MSMEs need investment counseling and support in this regard. In improving the poor market linkages, particularly for those in the design and garment industry, the relevant government office should make all efforts in establishing promising and sustainable linkage between the producers and consumers. Encouraging the use of technology to get into online marketing is an emerging approach which MSEs can benefit from. This could better be accompanied by demand driven trainings and related technical supports, with the intent of filling-in the knowledge and skill gaps of MSMEs owners. The overall findings of the study strongly suggest that sustainability of women owned MSMEs in Ethiopia would largely depend on the country's ability to significantly reduce the above-mentioned challenges (poor access to finance, technology, workspace, market linkages, input supply and other man-made constraints).



## 1. INTRODUCTION

The Small and Medium Enterprises (SMEs) has been considered as an engine of economic growth, poverty reduction, and social development particularly for developing countries which have multiple socio-economic problems including unemployment and high incidence of poverty. Evidence shows that SMEs play key roles in employment creation and income generation; import substitution; serving as bases for medium and large industries, and facilitating both forward and backward linkages of materials, goods or their products, services, and capital flows; and encourage sub-contracting, and income distributions among different sections of the society (Liedholm, 2002; Bekele & Worku, 2008). Because of these, emerging and developing countries have given huge attention to promoting SMEs.

The SMEs make huge contributions to the global economy. In this regard, SMEs represent about 90% of businesses and provide more than 50% of employment worldwide (WB, 2020). Formal SMEs contribute up to 40% of national income (GDP) in emerging economies and generate 70% of most formal jobs in emerging markets (UN, 2021). They make up over 95 per cent of enterprises and account for 60 to 70 per cent of jobs in most OECD countries (OECD, 2016). In the developing world, SMEs make up 90 percent of the private sector and create more than 50 percent of jobs in their corresponding economies (CSIS, 2021). In Africa, SMEs provide an estimated 80 percent of jobs across the continent, representing an important driver of economic growth. Sub-Saharan Africa alone has 44 million micro, small, and medium enterprises, almost all of which are micro. African SMEs face two significant financing challenges: accessibility and affordability. Accessibility refers to the ability of SMEs to access finance. Affordability refers to the cost of capital, or how much it costs for a firm to take out a loan or receive an investment (CSIS, 2021).

Since the last few decades, the Ethiopian government has given substantial attention to the expansion of SMEs in the country primarily because of their significance to job creation. The government is convinced that urban unemployment rate for major towns in is about 28% (CSA, 2020) with higher rate among women compared to their men counterparts. Owing to reducing unemployment, the government introduced the Ten-year Perspective Plan, the Plan of Action for Job creation, Ethiopian National Entrepreneurship Strategy (NES) and the SME strategy that targets women and youth. The 2016 small and medium enterprises development policy and strategy of Ethiopia (Regulation No 373/2016) arose from GTP II and revised from its 2012 version. The policy and strategy have a vision to see a vibrant

and competitive micro and small enterprises capable of providing diversified and solid foundations for industrial development with three key objectives (Gebreselassie, 2020): Create extensive employment opportunities with living wages, reduce poverty and enhance equitable distribution of income; contribute towards competitive and sustainable economic growth thereby creating foundations for industrial development and linkages with rural development; and create broad-based developmental investors in urban centers. The strategy sets out the goal of providing the following kinds of support: credit services, entrepreneurship and business management training, appropriate technology research, market support, information and counselling, business development services, and infrastructure provision, including roads, electricity, and water and access to land and workplaces (Ferede and Kebede, 2019).

Despite these efforts, however, there are also visible failures of SMEs due to a range of internal and external factors. For instance, according to Ministry of Trade (MoT)'s statistical bulletin, there were about 12,810 failed SMEs in the four years period (MoT, 2018). Most of these (11,090 or 86.57%) were small enterprises, and other (1,720 or 13.43%) were medium enterprises. Those surviving are also characterized by poor performance and sustained growth due to macro and micro level factors. Lack of entrepreneurial skill and lack of adequate technical skill measuring up to the requirements of manufacturing jobs most urban young men and women from creating their own jobs are the most frequently reported individual/micro level challenges (Tesfaye, 2015). Among the macro level issues, administrative insecurity due to recurrent civil strike, internal conflict and other civil unrest have significantly contributed to poor organizational performance (Abdissa, et al, 2022). The recent COVID-19 epidemic further endangered the sustainability and performance of MSMEs in Ethiopia (Abdissa, et al,2022). In view of monitoring the impacts of the COVID-19 pandemic and related containment measures on formal firms in Ethiopia and inform the policy response, the World Bank in collaboration with the government, has recently implemented a high-frequency phone survey of firms (HFPS-F) for eight rounds (April 15 and September 8, 2020). The survey witnessed that about 42 percent of the sampled firms were either temporarily or permanently closed in the first round. In subsequent periods, as restrictions relaxed and activities resumed, a gradual reopening of businesses was observed. Also, younger firms (those that are less than 5 years in operation) were reported to have experienced higher likelihood of closure than well-established firms (Girum, et al, 2020). This has severely impacted job seekers, especially young men and women who have little experience and constantly seeking jobs. The World Bank recent

report (Christina, et al, 2020) indicated that women experienced the largest drops in employment rates at the onset of the pandemic. Although worker layoffs were limited in scale, women employees were affected the most; 64% of laid off workers in April were women.

Other macro level constraints (such as declined credit to private enterprises) also play significant role in limiting the performance and sustainability of SMEs in Ethiopia. Increase in non-performing loans (NPL) and liquidity constraints confronting domestic banks, substantially limiting their capacity to inject cash into the real economy and support SMEs in need of working capital, in the absence of public action. Another WB survey reported that the credit provided to the private sector continues to represent a small share (36%) of domestic credit, while credit to the public sector (state-owned enterprises and the central government) represents more than 63% (Girum, et al, 2020). All this evidence warrants studying the main determinants of sustained growth of women owned enterprises in Ethiopia.

## **2. STATEMENT OF THE PROBLEM**

In the last two decades, significant attention has been given to the development of small and medium scale enterprises in developing countries because of their potential for diversification and economic transition as well as job creation. Micro-, Small- and Medium- Enterprises (MSMEs) are also extremely important to achieve Sustainable Development Goals (SDGs) and to empower women in developing economies.

In the Ethiopian context, MSMEs are the key instruments of job creation in urban centers, whilst job creation is the centerpiece of the country's development plan (MoUDH, 2016). Job creation to the unemployed is, therefore, the number one response to poverty reduction through income generation for the many job seekers mostly the youth and women. Above and beyond this the importance of MSEs is underlined in boosting product and service diversification and productivity both of which have positive impact on economic development. The Micro and Small Enterprises (MSEs) are described as the natural home of entrepreneurship. Most big businesses in Ethiopia have started as SMEs and have grown to their maturity over long period by accumulating capital and business management experiences (EEA, 2015). In Ethiopia, the need to support MSE development goes beyond the current priorities given to employment creation. In addition, they have a critical role to play in the country's industrial development, especially when the rapid expansion envisaged for the manufacturing sector under the ongoing renaissance program is taken into account (MoUDH, 2016).

That being the case, in order to achieve these positive outcomes, the sustainability and growth of established MSEs is crucial. The sustainability of Small and Medium Enterprises (SMEs) has been topical in recent years given the key roles that SMEs play in economic development and their potentially important contribution to economic diversification and employment (Fuchs, 2013).

Various reports and studies document that a sizable proportion of MSEs do not survive or are struggling to stay afloat without any growth. The outbreak of the Corona virus disease (COVID-19) pandemic threatened Ethiopia's gains in growth and poverty reduction, with micro-enterprises and SMEs expected to be among the significantly affected as a result of the economic slowdown. The emergence of COVID-19 has revealed that SMEs are quite vulnerable to external shocks. For instance, at the onset of the pandemic, over 42 percent of businesses reported that they completely ceased operations and 37 percent of businesses reported no revenues between March and April 2020 (WB, 2020). In order to build back from the COVID-19 pandemic, the sustainability of MSMEs is quite important.

Theoretical and empirical literature have identified micro-level factors determining the emergence and success of enterprises. Most of the studies have shown that owner- and firm-related characteristics are the basic factors that determine the success of a firm (see, e.g., Bruderl et al., 1992; Storey, 1994; Coleman, et al., 2010; Mulu, 2007). Most studies indicated that women-owned firms perform less in terms of different performance measures, such as number of employees (Rosa, et al., 1996, Mulu, 2007; Ermias, et al., 2017), revenue (Rosa, et al., 1996; and Brush et al., 2003), and profitability and survival (Fairlie and Robb, 2008; Endalew, 2020).

In characterizing MSEs that failed or couldn't grow, studies showed that firms that are less prone to growth or which fail are micro businesses (Gherhes et al., 2016) and those owned by women (Ermias et al., 2017; Bekele et al, 2008; Mulu, 2007). This instigates therefore, to study closely the sustainability and growth factors of women owned MSMEs. Prior research in relation to sustainability and growth determinants of MSMEs in the Ethiopian context are available. However, examination of these works showed that most are referring to MSMEs in general and not specific to that of women owned firms. The few which relate to studying sustainability and growth of women owned MSEs were based on firms limited to very specific geographic area. Moreover, these studies focus on only limited growth dimensions such as expansion in number of workers or profit (Ermias et al., 2017; Endalew, 2020; Mulu 2007). For instance, a recent study conducted by Abdissa et al (2022) was based on 194 SME employees capitalized on CORONA virus and

political instability as explanatory variables. Rahel (2018) focused on internal & external factors that influencing sustainability (i.e., survivorship) of small and medium scale enterprises in Ethiopia based on data from 277 sample of SMEs. Nevertheless, little attention was given to understand women owned MSMEs, particularly in the manufacturing and hospitality sectors. As a result, there is gap in knowledge in relation to sustainability and growth determinants of women owned MSMEs that covers broader national areas as well as that examines growth from multiple dimensions.

This study, therefore, intended to fill this gap by examining factors affecting sustainability and growth of women owned MSEs by taking multiple geographic representations of the country by considering firm growth in five dimensions, namely change in capital and assets, change in profit, change in employment size and change in product/service diversification in Ethiopian Hospitality and manufacturing sectors. The study laid out the following research questions to be answered:

1. To what extent women-owned<sup>3</sup> MSMEs in the manufacturing and hospitality industries showed sustained growth in terms of service diversification, income, asset and capital formation and growth in human resource?
2. What factors influence the sustainability and growth of women owned MSME in the manufacturing and hospitality industries in terms of service diversification, income, asset and capital formation and growth in human resource?

### **3. OBJECTIVES OF THE STUDY**

The general objective of the study was to examine the sustainability and growth of women owned MSMEs and their determinants in Ethiopian hospitality and manufacturing industry.

The specific objectives of the study are:

1. To determine what proportion of women owned MSMEs has shown growth in identified growth indicators;
2. To examine the key determinants of growth of women owned MSMEs in various dimensions, namely, change in profit, capital, and asset formation. human resource expansion and, product/ service diversification;

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<sup>3</sup> For this study women-owned MSMEs are those MSMEs which are solely owned by women or which women have lead decision making role in group-owned MSMEs

3. To identify and document enabling environment (opportunities), challenges and gaps associated with the potential to grow and thrive as women owned manufacturing and hospitality industry.

#### **4. SCOPE OF THE STUDY**

This study seeks to investigate the sustainability and sustained growth determinants of women owned MSMEs in selected five cities in Ethiopia, namely, Addis Ababa, Hawassa, Bahir Dar, Jimma and Dire Dawa. The five cities are believed to give geographic representation of the country in terms of location, and they also have relatively large MSME concentration. Sectorally the investigation is limited to enterprises in manufacturing and hospitality sub sectors. Particularly, in manufacturing the MSMEs included were those operating in textile design and production, traditional garment ornament production, leather products, wood and metal works, construction material production and food production. In hospitality industry, MSMEs operating in food catering services, cafe and restaurants were considered. In terms of age of enterprises, the study included those enterprises that were in operation for at least three years at time of the study.

#### **5. LITERATURE REVIEW**

##### **5.1 MSMEs, and MSMEs Related Policies in Ethiopia**

Conceptualizing SMEs: The definition of SMEs is very contextual, varying across countries. As such, there are no universally agreed definition as countries have their own criteria (Gibson & Vaart, 2008). Also, there are variations based on the economic activity sectors (Salimzadeh, Courvisanos & Nayak, 2013). However, the most commonly used yardsticks are the number of employees, total net assets, sales and investment level, number of annual working hours, annual turnover, annual balance sheet or production volume, and independence of the company (Harjula, 2008). Among the various criteria, the number of employee and the annual turnover seem to be the most important criteria used to define SMEs (Peacock, 2004).

The definition of MSMEs varies from country to country, and sometimes even within countries across sectors and government agencies. World Bank (2013) defined SMEs based on the size of the enterprise in terms of the total number of full-time employees and/ or total assets value. For instance, based on number of full-time employees, Micro enterprises are defined as those with less than 10 employees, small

enterprises with 10 – 49 employees, while medium enterprises are defined as enterprises with 50 - 249 full time employees. Similarly, Bourri et al. (2011) defines small enterprises as firms having less than 50 employees, less than Euro 10 million turnover and/or not more than Euro 10 million balance sheet total. A medium enterprise refers to a firm with less than 250 employees, having less than Euro 50 million, and turnover or not more than Euro 43 million balance sheet total.

In Ghana, SMEs referred to firm that have six to 99 number of employees and have not more than 2.5 billion Ghana Cedi (¢) of fixed assets (excluding land and buildings). In South Africa, SMEs are defined as distinct and separate business entities, including cooperative enterprises and non-governmental organizations that are self-managed by a single owner or more which includes its branches or subsidiaries, if any. In Cameroon, SMEs are defined as firms that have turnover value of not less than 1 billion Cameroon Franc (cfa), and accrued investments are not more than 500 million cfa, its short-term credit is not more than 200 million Cameroon franc and it has at least 5% owners of the capital and managers are Cameroonians.

In Ethiopia, according to the Small and Micro Enterprises Development Strategy of Ethiopia (published 2011) provides the working definition of MSEs is based on capital and Labor. For instance, small manufacturing industries are defined as industries having a total capital, excluding building, from birr 100,001 to birr 1,500,000 Ethiopian Birr (Federal Negarit Gazette,2016 :4). Nevertheless, the broader definition of the MSMEs is provided by the Ministry of Urban Development and Housing (MoUDH) in its strategy development in 2016. Accordingly, MSMEs are defined in a different way in each sector. For instance, Micro scale enterprise is an enterprise with 5 or less employees and with total asset of not more than 100,000 birr for industry sector and not more than 50,000 birr for service sector. Small Scale Enterprise is an enterprise which has 6-30 employees and total asset 100,001—1,500,000 Ethiopia Birr for industrial sector and 50, 001—500,000 Ethiopia Birr for service sectors. A Medium Enterprise in Ethiopia refers to an enterprise with 31-100 employees and total asset value above 500,000 Ethiopia Birr for service sector while it is an enterprise with asset value of 1.5 million-20 million Ethiopia Birr for industrial sector (MoUDH, 2016) This study is based on this definition of micro, small and medium enterprises.

**Policy environment:** On ground of this Ethiopia’s national definition, the country has also adopted various policies and regulations and also allocated significant number of resources to promote SMEs. For instance, according to GTP Performance report cited in MoI (2013), the government has allotted more than one

billion Birr in order to strengthen the capacity of SMEs and to solve their financial constraints, committed to providing trainings offered for SMEs members in different thematic areas such as business management, entrepreneurship, technical and vocational training. Also assigned 5000 hectare of production area, 1757 shades and 46 buildings were constructed and offered for SMEs (MoI (2013).

The country has been also using MSMEs to promote women economic empowerment and gender equity. Micro and small -scale enterprises are key industrial policy direction for the desired structural transformation of the economy of the country. MSEs are the key instruments of job creation in urban centers, whilst job creation is the centerpiece of the country's development plan. MSEs play major roles in this regard, because integrating the two in the various sectors of the economy is an important avenue for enhancing productivity as well as generation of new employment options. MSEs are largely informal in nature and mainly employ the low skilled segments of society. Policies need to address the labour market conditions for the poor, particularly women in both rural and urban areas. The development plans state also that the need to increase participation of women in small enterprises, commercial and construction unions, micro-financial institution in urban area (MoI, 2013)

MSEs are the key instruments of job creation in urban centers, whilst job creation is the centerpiece of the country's development plan (FDRE, 2016). The tourism development policy (MoCT, 2009) also states creating employment opportunities for women is one of the focuses of the sector. For instance, by getting them to organize in micro and small-scale handicrafts and art fields to produce in variety goods and services for tourists. Rural Job Creation Strategy (2017) which has been implemented by the Ministry of Agriculture and Livestock Resources (MoALR) also promotes women economic empowerment through its entrepreneurship or self-employment, wage employment, livelihood diversification etc. intervention programs. Industrial Development Strategic Plan (2013-2025) focuses on supporting priority sectors based on their capacity to create employment opportunities. Small and Medium-sized Enterprises (SMEs) are specifically identified as the engine of this industrial development strategy and thus also the engine of industrial growth. The implementation strategies of the Industrial Development Strategic Plan focus on ensuring conducive business environment, enhancing technology transfer; and providing institutional supports. It gave little attention to gender differential aspect of the industrial sectors and women economic empowerment.



## 5.2 Theoretical Review

There are wide range of theories defining key determinants of businesses sustainability. Some of the theories claim that resources are important for business sustainability while others claim that stakeholders and business environments are critical factors for business sustainability. The following sections summarize how business sustainably is discerned in different theories.

*Resource based view theory:* From the resource-based view, Penrose (1959) pointed out that resource possessed, and the way it is utilized would give more results for business sustainability. Similarly, Prahalad and Hamel (1990) uplifted “core competency” and associated it to a range of critical resource the firm has. The resource-based view theory further identified opportunities based on uniqueness of resource may lead to competitive advantages (Grewal, et al., 2011). The theory underpins that all resources allow the enterprises to achieve their business objectives efficiently. Nevertheless, the resource-based perspective of firms’ sustainability may not apply to small and medium-sized enterprises since they don’t have adequate resources to ensure their sustainability (Darcy et al., 2014; Carson, 1990).

*Diffusion of Innovation Theory:* Rogers (1995) came up with a theory related to sustainability of business from the perspective of Diffusion of Innovations (DoI). Rogers' growth in innovation theory is perhaps best suited to exploring the technology orientation in small and medium enterprises and insightful ecosystems (Li & Asim, 2019; Parisot, 1995; Medlin, 2001). According to this theory, the primary drivers of sustainability, competitive advantage and efficiency for small and medium-sized enterprises are the introduction of new technology and non-technology innovation (Price, Stoica & Boncella, 2013). According to Fagerberg et al (2004) SMEs with higher innovations tend to have higher income and employment than SMEs that are less innovative and creative. As a result, innovation research, particularly for small and medium-sized enterprises is vital for sustainability, success in the enterprise and inclusive growth (Jia, Tang & Kan, 2020).

*Stakeholders Theory:* The stakeholder theory was propounded by Freeman with main focus on business ethics (Freeman, 1984). The stakeholder theory explains that companies must take into account the demands of the remaining shareholders (Freeman, 1984). Thus, a continual growing network should be reckoned as a vital part of the company. Therefore, sustainable manufacturing needs to practice a culture which incorporates environment, social and economic systems into its functional corporate practices (Hami et al, 2018). In other words, the enterprise is supposed to accommodate suppliers, consumers, customers, and employee being their influential

stakeholders with respect to the environment, economic and social structures (Hami et al., 2018).

The latest business theories that would require shareholder opinions and exemplify long-term sustainability and short-term value creation from the point of view of shareholders (Shim, 2014) believe that business continues to exist not only for the benefit of shareholders, but also for the benefit of members such as suppliers, customers, employees and, to a certain extent, for economic progress. Freudenreich, Lüdeke-Freund and Schaltegger (2020) points out that organizations that adopt a sustainable business model need to improve existing institutional and cultural capacities to achieve sustainable business growth and work with principal stakeholders to ensure resilience system that consider management is a component. In short, small, and medium-sized enterprises need reforms that go far beyond basic cultural fitness and work together to foster more adaptable conduct and capacity for culture to cope with rapid change (Carvalho et al., 2019).

*Contingency theory:* Contingency theory pointed that firms could continue strategic matching which correspond with the external environment and uncertainties to gain the appropriate competitiveness, business growth performance and sustainability. The basic principle of the dichotomy of contingency theory would be that organizational effectiveness results from the adaptation of organizational factors, such as structure and contingencies that reflect the organizational situation (Bagnoli & Giachetti, 2015; Penning 1992). Environment (Burns & Stalker, 1961), organizational size (Child, 1975) and organizational strategy (Chandler, 1962) include contingency plans (McAdam et al., 2019) are important for business sustainability. Because the appropriate contingency of strategic choices results in higher performance, the organization hopes to confirm fits (Van Looy & Van den Bergh, 2018). The contingency of environmental stability tends to affect the structural system (Penning 1992).

*Dynamic Capabilities Theory:* The dynamic capabilities theory was promoted by Teece, Pisano and Shuen (1997) followed by Teece (2017), who noted that ordinary capabilities are mostly about businesses doing the right thing, while dynamic capabilities were about doing things right in terms of new product (and system) growth, unique management orchestration process, change-oriented organizational culture, and accurate assessment of business climate and technology trends at the right time. According to Teece (2017) strong dynamic capabilities are indeed owned by few, not by many. With rapid innovation and unique business models, a business with high dynamic capabilities could stay longer (Schoemaker, Heaton & Teece, 2018; Cuervo-Cazurra et al., 2020). Cognizant to the dynamic

nature of the economy, firms should be working on capabilities which have been reinforced in recent times (Teece, 2011; Kuuluvainen, 2012).

*Upper Echelons Theory:* The theory of upper echelons suggested that the managers' situation partly influence the organization results, strategic decisions as well as level of performance. Remarkably, senior executive experience, core values, personality traits structure their interpretation of the positions they face, and in turn influence their choices (Hambrick, 2007). Nor-Aishah, Ahmad and Thurasamy, (2020) recognized the contribution of upper echelon theory (UET), believing on Hambrick and Mason (1984) ideologies which have claimed that top management homogeneity are testable background qualities like the senior executives age, operational tracks, certain professional experiences, educational status and economic class affects innumerable organizational outcomes which involves firms' competitive behavior, diversification level, innovation, strategic business change and efficiency. The upper echelon theory (UET) is one of the valid theories recently as the enterprise top managerial officials play significant roles in evaluating organizational efficiency (Hambrick, 2007; Bonelli, 2014; Nor-Aishah, Ahmad & Thurasamy, 2020). The upper echelon tasks have a positive effect on organizational sustainability and, as such, contribute to the future sustainable growth of small and medium-sized enterprises (Tacheva, Simpson & Ivanov, 2020).

### **5.3 Empirical Review**

There are prior empirical literatures that have tried to identify determinants of sustainability and performance of SMEs. Some of the empirical studies categorize the factors affecting sustainability of SMEs into exogenous (external) and endogenous (internal). For instance, Peterson and Colleagues (1983) believe that endogenous factors were the main cause of failure, while exogenous factors determine approximately one third of small business failures (Peterson et al., 1983).

Others such as Hall (1992) attributed failures of SMEs to lack of appropriate management skills and inadequate capital. Gumel (2017), in his study of SMEs in Nigeria and UK, reported that SMEs fail mainly due to disasters and crises, infrastructural inadequacy and lack of social support, multiple and high taxes, poor accounting and bookkeeping practices, management inefficiency, poor marketing and sales efforts, poor economic condition, improper and poor planning, financial problems. Bekele and Worku (2008) conducted a longitudinal study (1996-2001) to assess the impact of influential factors that affect the long-term survival and viability of small and medium enterprises by using a stratified random sample of 500 MSMEs

from 5 major cities in Ethiopia. They found that adequacy of finance, level of education, level of managerial skills, level of technical skills, and ability to convert part of their profit to investment were critical factors for the survival of SMEs. In another study, technological constraints were reported as key factors for SMEs failure (Hassen and Svensson, 2014).

Some other studies emphasize on internal environment which includes firm age and size influence the performance of SMEs (Arend, [2014](#); Nicolini, [2001](#)), human resources and human resource practices (Katou, [2012](#); Sheehan, [2013](#)), entrepreneurial networks (Bratkovič et al [2016](#)), sustainable leadership, presence of planning and strategy (Suriyankietkaew & Avery, [2016](#)), market, entrepreneurial, and learning orientations (Lomberg, Urbig et al , [2017](#)), planning flexibility (Alpkan et al., [2007](#)), and ownership and family involvement (Lien & Li, [2017](#)). External factors include variables which are related to business and policy environment in which SMEs operate. For instance, evidences have shown that innovation policy has a great deal of impact on service and manufacturing SMEs in England (Foreman-Peck, [2013](#)). Other reaches pointed out that cluster development policy affects the performance of SMEs' in Brazil (Figal et al, [2015](#)).

Studies focusing on attitudinal, skill and behavior related determinants reported a wide range of interrelated factors determining the sustainability of SMEs around the world. Lawal et al (2016) in their study reported that perceptual factors, personality, attitudinal, management skills and motivation were the critical skills required for sustainability of entrepreneurship. Nasrul et al (2011) identified that relationship factor, sustainable factor, supply factor, and product related factor leads to success of an entrepreneurs. Mahima (2010) reported that leadership qualities, updated market information, ability to associate with others, self-confidence and optimism, capability to predict future business risks, initiative, responsive to suggestions and criticism, extra-ordinary energy and diligence, capacity to face challenges, perception and foresight, resourcefulness and perseverance are the qualities required for sustainability of entrepreneurship. In another study, educational qualification, business experience and experience in financial management were found to play vital for the success of entrepreneurship. Edwige et al (2013). Bholanath Dutta (2009) mentioned that qualities of successful entrepreneur are decision making capacity, dynamic leadership, self-confidence etc.

Studies conducted in Ethiopia focus on macro level determinants of sustainability of SMEs. Abdissa et al (2022), in their studies of SMEs in Ambo town (Ethiopia) identified more general determinants including the political scene, party politics, conflict, rapidly growing rates of crime and terrorist actions, abductions, and

bomb strikes, withholding economic support, and driving away investment opportunities from the country. Furthermore, widespread corruption in government service delivery would exacerbate Ethiopia's ongoing political instability. The study's econometric model results show that Ethiopian political instability has a negative and significant impact on enterprises' innovativeness. Because of ongoing political unrest, businesses are unable to introduce new products and/or processes into their operations (Shitaye 2022).

Okpara and Wynn (2007) research on small business development has shown that the rate of failure of MSEs in development countries is higher than the developed world. Shiffer and Weder (2001) clearly show that there are size-based policy biases against MSEs, and more so against smaller firms in the microeconomic environment. These biases cover all areas: legal and regulatory frameworks, governance issues, such as bureaucracy and corruption, access to finance and property rights. Okpara (2011) revealed that the problems facing the growth and survival of SMEs in Africa are administrative, operating, strategic, and exogenous factors.

Geberhiwot and Wolday, (2006) surveyed more than 11,000 MSEs and found out that about 5 percent of them admitted having main constraints notably lack of working space for production and marketing, shortage of credit and finance, regulatory problems (licensing, organizing, illegal business), poor production techniques, input access constraints, lack of information, inadequate management and business skill, absence of appropriate strategy, lack of skilled human resource, low level of awareness of MSEs' as job area, low level of provision and interest for trainings and workshop. According to this research, that lasted from 1996-2001, the factors that affect the long-term survival of MSMEs in Ethiopia are found to be adequacy of finance, level of education, level of managerial skills, level of technical skills, and ability to convert part of their profit to investment.

Minilek and Chinnan, (2012) findings showed that shortage of working capital and premises are the most significant problems for MSE enhancement. Woldia. Amare and Abebaw (2021) have conducted research on identifying factors for the survival of SMEs in the East Gojjam Zone, Ethiopia. The study used multivariable Weibull regression model and the result showed that manager profile (gender, age, educational status, experience (in year) and source of experience), working place, marketing channel and profitability district status of enterprise were found to be statistically significant factors for the sustainability of enterprises in the study area.

Gurmeet Singh and Rakesh Belwal (2008) found that lack of entrepreneurial and management competence and exposure, problems in finding the markets and distribution networks; limited opportunities for promotion and participation; limited amount of government and institutional support; absence of technological know-how and integration mechanism; and corruption as major bottlenecks in establishing and running SMEs. Additionally, Gurmeet Singh and Rakesh Belwal (2008) noted that improving access to infrastructure, and provision of education, training and extension remain vital in leading women entrepreneur from small and micro enterprises to the pathway of medium to large-scale enterprises.

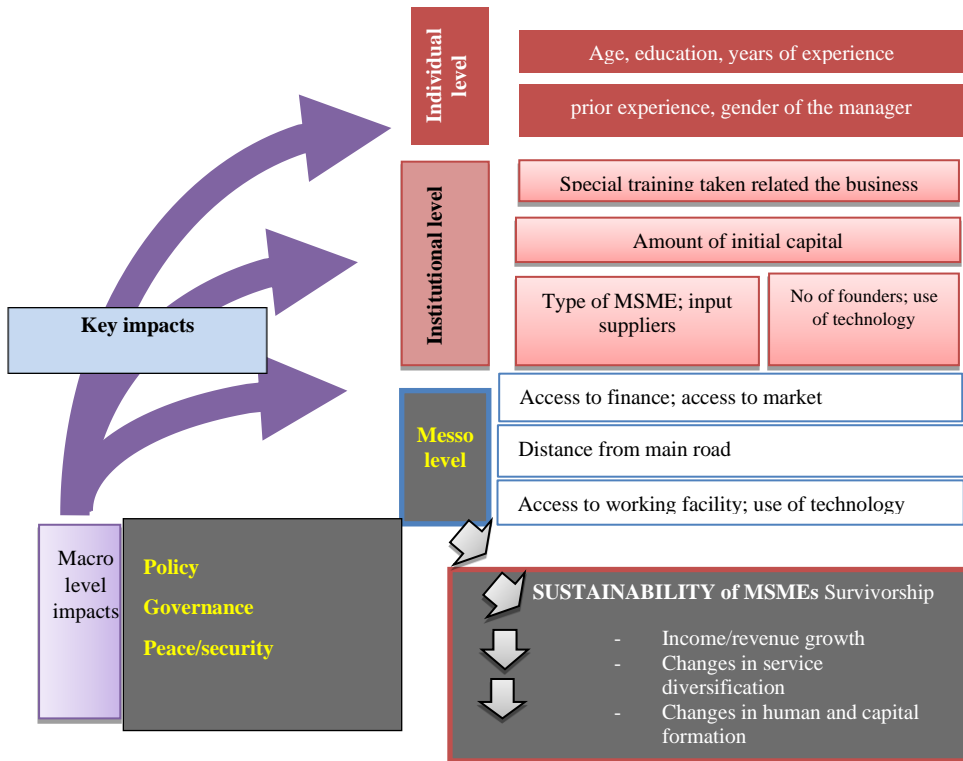
Nevertheless, the gender dimension of the sustainability of MSMEs review was given little attention in the empirical studies. Particularly, the women owned MSMEs were not the focus of previous studies. There is little evidence regarding determinants of women owned MSMEs. Therefore, this study fills this knowledge gaps for policy and development interventions to improve sustainability of women owned enterprises.

#### **5.4 Conceptual Framework**

Based on the above empirical and theoretical literature reviews, characteristics of MSMEs such as numbers of founders, years of experiences of the business, and demographic characteristics of leaders/managers/owners of MSMEs such as age, sex, education, prior experiences, internal factors including the exposure of the founders and the managers to training and capacity buildings and other institutional factors influence the sustainability of MSMEs.

Sustainability can receive different meaning from one disciple to the other. In this study, the definition of sustainability of MSMEs is considered from business aspect. In relation to business, the most commonly used definition of sustainability is an enterprise ability “to meet the needs of its stakeholders without compromising its ability to meet its needs in their future (Hubbard, 2009). Similarly, in this study sustainability is defined as the capacity of enterprises to remain profitable in the business by withstanding different shocks. The definition could be precisely represented as resiliency of small and medium enterprises over time. This refers to businesses that can survive shocks, and intimately connected to healthy economic, social, and environmental system. Accordingly, the following conceptual framework is developed for this study.

**Figure 1: Conceptual framework for key predictors of success of women owned MSMEs in Addis Ababa.**



Source: Developed based on the theoretical and empirical literature reviews, 2022

## 6. RESEARCH METHODOLOGY

### 6.1 Description of the Study Area

The study was conducted in five major cities of Ethiopia: Addis Ababa, Hawassa, Bahir Dar, Jima and Dire Dawa. Addis Ababa is selected due to its being the capital city of the country. Hawassa and Bahir Dar are the fastest growing regional capitals, also representing the south and north geographic zones of the country. The selected cities were growing fast in the last three decades and have become a hub for a range of women MSMEs.

*Addis Ababa* is located at the center of Ethiopia and is the seat for both the Federal Democratic Republic of Ethiopia (FDRE) and Oromia National Regional State Government. It is bordered with Oromia National Regional State in all directions.

There are 11 sub-cities (Kifle ketema) and about 99 Kebeles (AACAA 2023). According to the projected result of last Census (2007), the estimated population size of the city was 3,147,000 of which 1,511,000 were men and 636,000 women (CSA, 2012) with eight percent annual growth rate and density of 5936.2/km<sup>2</sup> (CSA,2007). The city is home to 23.8 percent of all urban dwellers in Ethiopia due to its position as capital of the country. Addis Ababa has reportedly a 19% unemployment rate according to a recent urban unemployment survey (CSA 2020)

*Hawassa city* Administration is one of the 22 city administrations in the earlier Southern Nations, Nationalities and Peoples Region (SNNPR). It was the capital for the region and since June 2020 it became the capital of the Sidama region. It is located 275 km Southeast of Addis Ababa along the Moyale highway road. The city is administratively divided into 8 sub cities and 32 kebeles. According to projections of the central statistics authority of Ethiopia, Hawassa's population was estimated to be 436,992 in 2020, constituting 224,907 (51.4 %) males and 212,085 (48.6%) females (FDRE, 2020). Much of the population growth in Hawassa has been the result of internal migration from across all the adjacent zones, expansion of educational and other facilities, also widening of the city's boundaries has caused some of the increase. (FDRE, 2020). The city's has unemployment rate of 20% according to urban unemployment survey by CSA (CSA, 2020)

*Bahir Dar* is the capital city of Amhara Regional Government and located in the Northern part of Ethiopia. Based on the 2007 Population and Housing Census of Ethiopia conducted by the Central Statistical Agency of Ethiopia (CSA), Bahir Dar Special Zone had a total population of 221,991, of whom 108,456 are men and 113,535 women. Four fifth (180,174 or 81.16%) are urban inhabitants and the rest of population are living at rural kebeles around Bahir Dar. Among the working age population of the city 26.8% are unemployed (CSA 2020)

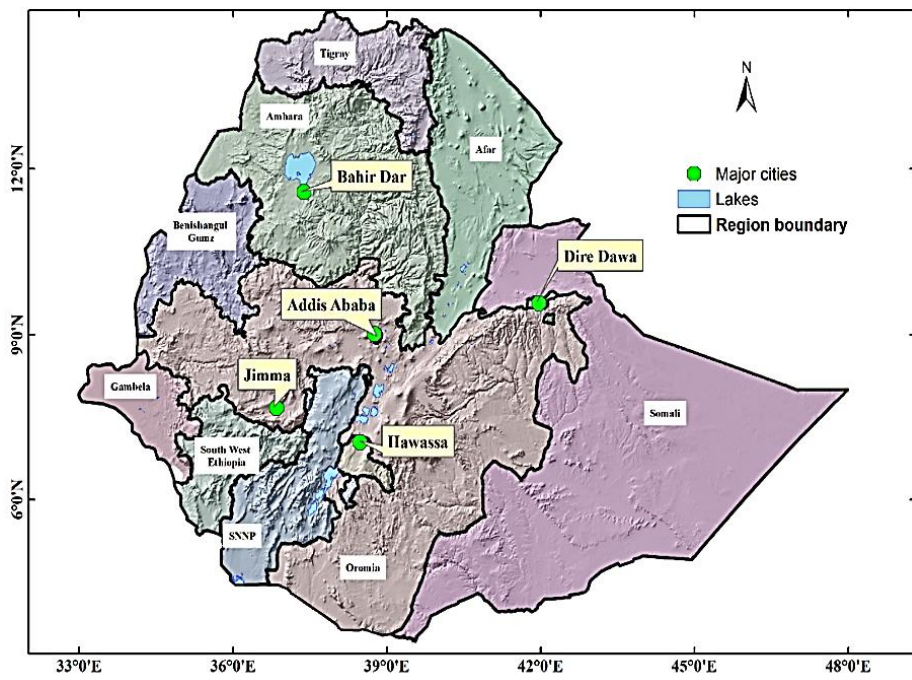
*Jimma Town* is located at 352 km to the Southwest of Addis Ababa with a latitude and longitude of 7°40'N 36°50'E. The town is one of the 10 "grade A" towns found in Oromia National Regional State. Currently, the town comprises of 6 sub-cities (previously called Keftenyas) and 17 Kebeles which are 13 urban and 4 rural kebeles. Sub city is the second administrative level next to the municipal government while kebele is the least administrative level next to sub city. In terms of population size, the Jimma town population was estimated to be 120,960 out of which 49.76% was Female and 50.24% was male and annual growth rate 4.72%, according to the 2007 Census of the country (CSA, 2007). The projected population for the year 2022 therefore would be about 234,219 with 117,672 (50.2) males and 116,641 (49.8) female population. The recent urban unemployment survey recorded an 18.5% unemployment rate among



working age population in the town (CSA 2020) In selecting Jimma town instead of Adama, both being in Oromia region, the consideration was that Adama being closer to the capital city Addis Ababa it has similar urban features in communication and access to resources like Addis Ababa. To capture more contextual variation due to location Jimma was selected over Adama.

*Dire Dawa:* city is a cosmopolitan with high cultural diversity located on the eastern edge of the East African Rift Valley, at 452 km driving distance from Addis Ababa to the East and 30 miles (48 km) northwest of Harer. It lies at the intersection of roads from Addis Ababa, Harer, and Djibouti and has an airport. The city has railway workshops, textile and cement factories, and coffee- and meat-canning plants and trades in coffee and hides. Most of its inhabitants are Oromo, Somali, or Amhara people. Unemployment is one of the socioeconomic challenges to the city (33%, according to report by UN-Habitat, 2008) of which women constitute 71%. It was also reported that most of the unemployment (83%) is among youths with age group of 15-39 years, the productive segment of the population (UN-HABITAT, 2008). Recent survey recorded a 21 % unemployment rate among working age population in the town. (CSA 2020)

**Figure 2: Map of the study areas**



## **6.2 Study Design and Approaches**

The study employed a combination of cross-sectional and ecological design. A cross sectional design is the one which collects data at a specific point in time. The ecological design entails collection and analysis of data at group level (i.e taking MSMEs as unit of analysis). The study used both qualitative and quantitative approaches. Intensive desk review and qualitative data were used mainly to determine the main challenges and gaps faced by MSMEs to sustain and grow and to trace reasons as to why some MSMEs failed (i.e survivorship).

## **6.3 Data Sources**

The required data for this study were generated from both primary and secondary sources. As to the primary source, information was collected from relevant survey of MSMEs using structured questionnaire. In addition, qualitative data were collected from MSME owners and pertinent officers in respective city administrations who were assigned to closely support operations of the MSME, by way of focus group discussions and key informant interviews. Information was also collected from secondary sources mainly from MSMEs, Ministry of Trade, and Industry (MoTI), Federal Small and Medium Enterprises Agency and other relevant sources. The secondary data were used in designing sample frame and to assess changes in key sustainability indicators over time.

## **6.4 Sampling Design**

The population of the study includes those micro, small and medium scale enterprises in selected regions of Ethiopia that engage in retail business. For the purpose of ensuring geographic representation of the sample, the research team decided to cluster regions into five groups based on location, socio-demographic characteristics and economic activities. Five towns, one from each cluster region, were selected purposively by considering the concentration of adequate number of MSMEs that they have. The city of Addis Ababa is included in the sample as it is the city of the seat of the Federal Government and melting pot of a range of MSMEs. Bahir Dar represents the Northern regions; Dire Dawa represents the eastern part and the economic activities in peripheral regions. Hawassa, a current capital of Sidama region, and a city that served as the seat of SNNPR for more than three decades, is selected for this study to represent southern part of the country. The research team believes that Jimma town can represent the western part of the country. The five

cities were assumed to provide good national representations and geographic heterogeneity, for this study. From each of the study locations, those business which have been established before three years (by year 2019) were included in the sampling frame. This enabled the research team to capture the trends in the operation of the firms with regard to capital and asset formation, human resources, diversification, and income and profits.

The first step in estimating a representative sample of MSMEs is to identify the outcome variable(s) or indicator of interest. Given that the primary objective was examining the level of sustainability of women owned MSMEs, a good indicator for sampling purposes was the estimated proportion of women owned MSMEs in the five study cities. As the most current and accurate proportion of the estimates for each city was not readily available, the research team used the default 50% ( $p = 0.50$ ) for maximum effects. The sample size, thus, was estimated using the following formula:

$$n = \frac{z^2 p(1-p)fk}{e^2} = \frac{z^2 p(1-p)[1 + \rho(m-1)]k}{e^2}$$

Where,

$n$  = sample size to be determined.

$z$  =  $z$ -statistics corresponding to the level of confidence desired. The commonly used level of confidence is 95% for which  $z$  is 1.96.

$p$  = estimates of the indicator of interest (i.e., proportion of women owned SMEs), i.e., 50%

$f$  = sample design effect.

$\rho$  = intra-cluster correlation coefficient (i.e., range from 0 [no intra-cluster correlation] to 1 [when all MSMEs in the same cluster are exactly alike].

$m$  = average number of eligible respondents/MSMEs selected per smallest cluster, 15 MSMEs

$e$  = margin of error, sampling errors or level of precision. The commonly used value for  $e$  is 0.05.

$k$  = Factor accounting for non-response. For this study, 1.1 is the factor necessary to raise the sample size by 10 percent for non-response,

We computed the design effect using the formula:  $f = 1 + p(m-1)$ , where  $f$  is the design effect,  $p$  is the intra-class correlation, and  $m$  is the average number of sample respondents per small cluster/ sub-kebele. Our choice of sample size was based on a two-sided 95% confidence interval (i.e.,  $z = 1.96$ ), a margin of error of 5% (i.e.,  $e = 0.05$ ), intra-class correlations of 0.03 (3%), and an average number of

eligible MSMEs per cluster of 15 (i.e.,  $f = 1.42$ ) and a prevalence rate of 0.5(50%). This would yield a total sample size of 600, including 10 % allowance for non-response. The data were collected from a total of 564 eligible MSMEs from the five cities resulting in 94 % response rate. They were randomly selected from available list. Originally it was planned to divide this number equally to the five cities. However, it was learned later that the number of MSMEs that fulfil the inclusion criteria of, women-owned and which were in operation for at least four years, were not the same across the five cities. For instance, there were more eligible MSMEs in Addis Ababa compared to the other cities, the least observed in Dire Dawa.

## **6.5 Data Collection Procedures**

### **A) Pre-data collection activities:**

As clearly stipulated above, the study has employed quantitative and qualitative approaches and generate the data from both primary and secondary sources. The data collection was guided by a standard field procedure with a broad set of actions implemented sequentially. The research team tried to ensure that the field activities were conducted following acceptable ethical procedures. The data collection procedure included, recruitment of field workers, translation of data collection tools, training of field staff, and field data collection. The following activities were done during the pre-data collection stage:

*Logistics arrangement:* Our human resource and logistic division was responsible for provision of transportation and other facilities for enumerators, supervisors, and coordinators.

*Research team formation and data collectors' recruitment:* This assignment required a careful assignment of core research team and selection of field staff. The team conducted a thorough review of the field staff's profile in terms of their qualification, language skills, work experience, and ethical behaviors. A total of ten data collectors and two experienced supervisors were recruited and deployed to conduct the survey in the five cities. Three researchers were closely monitoring and coordinating the data collection.

*Field staff training:* The team made all the necessary preparation, including the translation of the checklists and all other necessary training logistics- The training for field staff consisted of a one-day curriculum. The training was provided using lecture method and plenary discussion, as well as role-play techniques.

*Field staff deployment:* The field staff was deployed to each city two days prior to the actual data collection day. Arrangement of logistics, issuance of letters and ethical clearance certificate was done before mobilizing the staff to the field.

## **B) Data collection**

Data collection followed sequential approaches. First, document reviews on major theories of sustainability, Ethiopian development and sectoral policies, determinants and challenges were conducted. Such assessment was expected to throw light on how operations of MSME's benefited or, otherwise restricted because of the state of sectoral linkages prevailing. Following this, primary data collection (formal survey, KII and FGD) was conducted.

*Structured survey:* Individual survey was conducted to generate quantitative data on indicators of success and their determinants using structured questionnaire presented in Annex A. The survey questionnaire had various section including socioeconomic characteristics of the respondents such as gender and level of education, as well as characteristics of the MSMEs such as groups size and members composition. Respondents of the survey were chairperson or other leader of the MSMEs. The survey data were collected using enumerators using Kobo Toolbox.

*Key informant interviews:* Pertinent officers from city administrations working as organizers and advisors to MSMEs and operation supervisors were consulted to examine the dynamics in the SMEs in Ethiopia across different epochs. The key informant interview included some failed business in three cities (Bahir Dar, Addis Ababa and Hawassa). From Addis Ababa: a cafe and restaurant business-(life span of mid-2015 to mid - 2022<sup>4</sup>); in Bahir Dar: a food manufacturing (Bakery) – with life span of mid 2017- mid 2022<sup>5</sup> was included. From Hawassa, Cafe and restaurant business with life span mid 2012- mid 2019<sup>6</sup> was interviewed.

The questions for the key informant interview were prepared by the researchers. The key informants were selected from local administration and experts of government agencies. At regional level, relevant KIIs from city administration were contacted.

*Focus group discussions:* this method was used to gain more information about MSMEs in participatory manner. About six participants in a focus group discussion from different MSME owners participated. A total of nine FGDs were

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<sup>4</sup> This refers to life span of 2008 - 2014 in Ethiopia Calendar.

<sup>5</sup> It refers to life span of 2010 - 2014 in Ethiopia Calendar.

<sup>6</sup> It refers to life span of 2006-2011 in Ethiopia Calendar

conducted across the cities, Addis Ababa, Bahir Dar, Hawassa, Dire Dawa and Jimma. In order to frame and gear the discussions into the desired goal, discussion guiding questions related to the topic was developed. Two supervisors conducted the focus group discussion.

## **6.6 Measurement of Outcome and Explanatory Variables**

The study measures sustainability in terms of five distinct but interdependent variables: Service diversification, Profit income/revenue growth, changes in human resources and amount of increase in capital and assets. The five outcome variables were measured by subtracting the reported amount at the establishment time from the current reported amounts. Each formed a continuous variable. Then, the continuous outcome variables were converted to a binary nature (i.e 1 if the changes were positive and 0 if the changes were either zero or negative). The most important potential independent variables included are of two types: Individual level and group level. The individual level variables are age of the respondents, education level, prior experience in the business...etc. The group level variables include initial capital, distance from the market, number of suppliers and other variables presented in Table 1.

**Table 1: Description of variables**

Description of variables	Measurement	Expected sign of association to sustainability
<b><i>Dependent/outcome variables</i></b>		
Service/products diversification	Number of services/products added after the establishment	
Changes in revenue/profit	Amount of cash (in Birr)	
Changes in capital formation	Amount in cash (in Birr)	
Changes in asset (physical resource)	Amount in cash (in Birr)	
Change in human resource	Number of permanent and part-time employees	
<b><i>Individual level</i></b>		
Sex of lead of SME/manager/	1= male; 0=female	
Age of lead of SME	Age in completed years	-
Level of education of lead of SME	Grade in years	+
<b><i>SME level</i></b>		
Numbers of founders	Numbers of founders	+/-
Distance from the main road	Numbers of kilometers	-
Years of experience of the manager	Numbers of years	+
Years of experience of the owner in the business	Numbers of years	+
Prior experience on the business	Yes =1, 0=No	+
Access to finance	Yes =1, 0=No	+
Access to market	Yes =1, 0=No	+
Access to working facility	Yes =1, 0=No	+
Status of engagement	1= Fully engaged 2= Part-time business	+/-
Frequency of meeting among founders per year		+
Having made purposeful stake holder analysis	Yes = 1, 0 = No	+
Use of technology for manufacturing, services, transaction and documentation (computers, applications, mobile phones, machinery etc.)	0 = None 1= To some extent 2= To great extent (multiple technologies)	+

## 6.7 Method of Data Analysis

*Quantitative data analysis:* The quantitative data were analyzed using STATA version 16. The quantitative analysis considered both the primary data (survey questions) and data collected from secondary sources (i.e., to examine the determinants and trends in the sustainability indicators stated above). Descriptive analysis was used to examine the characteristics of the study sample. Due to the categorical nature of the five outcome variables, binary logistic regression was used to examine the key determinants. The model is given by the following form.

$$Li = \ln\left(\frac{Pi}{1 - Pi}\right) = Zi = \beta_1 + \beta_2 Xi$$

Where Z represents either 1 or 0. (1 if the SME has shown positive change in the outcome variable and 0 otherwise). The Xi are the covariates which are indicated in the table above. The original values of the outcome variables were continuous, which normally invites the use of Ordinary Least Regression. However, since most regression assumptions were not met and most SMEs made negative growth or no growth, use of binary variable was more appropriate.

Multicollinearity among the explanatory variables was checked using Variance Inflation Factors (VIF). All variables having a p-value < 0.20 significance level in the bivariate analysis. were entered into the multivariable binary logistic regression model .95% confidence interval was calculated for each factor in each regression model.

*Qualitative data analysis:* The qualitative analysis was used mainly to examine the main reasons why some SMEs fail (i.e., survivorship of SMEs) based on responses from failed women owned SMEs. In addition, the qualitative analysis was used to assess the challenges and gaps in sustainability of SMEs. The data to be generated from desk review and FGD/KIIs were organized into key thematic areas. Data analysis was ongoing in conjunction with data collection. Coding the data began once all the data were fully transcribed. Initial coding activity was done based on prior conceptual categories (deductive coding) and further coding concepts were derived from the data (inductive coding). Finally thematic analysis was applied to consolidate the qualitative findings.



## **6.8 Ethical Considerations**

This study involved human beings who provided information. Thus, the research team had clear understanding of potential risks and harms, and minimal procedures are set in place to explain the potential risk in easily understandable terms to the potential research participants. This was done so that they can voluntarily make an informed choice whether to participate or not. Accordingly, the research team made sure that the following ethical considerations were met:

All field staff had two-days training on introduction to research ethics. The training was meant to equip them with the ethical issues in data collection, recording and management of information. The team made sure that the supervisors had ethical clearance provided by the local IRB. Informed consent was obtained from research participants prior to data collection. Supervisors and data collectors ensured that the privacy of research participants was maintained throughout the data collection period. The research team confirmed that the entire data collection endeavor was gender responsive.

## **7. RESULTS AND DISCUSSION**

### **7.1 Characteristics of the MSMEs and Survey Respondents**

Table 2 presents the distribution of respondents by background characteristics. The analysis used a total sample of 564 MSME owners/ managers from five major cities of Ethiopia. In terms of the age of the enterprise, more than half of them were aged 3-5 years (56.9%), 37.6% of them were aged 6-10 years and only 5.5% of the MSMEs were functional for more than a decade. A little more than half (52.7%) of the MSMEs were deemed to be “small”. The distribution of the enterprises by sector indicates dominance of manufacturing- food (20%), textile and garment design (19.5%) and Tourism and Hospitality (20.7%).

Manufacturing – leather, traditional garment and ornaments, and metal woks and engineering accounted for smaller proportion of the enterprises surveyed. More than 60 percent of the SMEs were reported to be founded by less than five persons, and about 35 percent of them were founded by five to ten people. Close to 90 percent of the enterprises (n=497) were established by the founder(s)’ own capital. The chance of securing credit from the microfinance institutions or banks and, relatives/friends was very low (19% and 11%, respectively). This was well stressed in the focus group discussions as well with enterprise managers and leaders. The preconditions set by microfinance institutions and banks to secure credit the high

interest rate and the short period given for loan repayment were reported to be the barriers to apply for credit. While about 81 percent of the enterprises were reported to be fully functional, the remaining were partially operational. It was reported that more than 75 percent (n=429) of the enterprises had work premises rented from the government (Table 2).

Table 3 presents the operational characteristics and experiences of the sampled enterprises. The variables used to explore operational characteristics below, were identified based on the various theories and empirical literature reviewed in relation to features that contribute to sustainability and growth of enterprises. In this sub section the profile of the enterprises against these characteristics is presented while in a subsequent section their association with growth indicators will be examined. It is noted that 43.4% of the owners were engaged in similar type of work before they started their own business. Close to three-fourth of the enterprises' owners provided trainings to their members. However, when it comes to relevant skill training, close to two-thirds of the enterprises reported to have provided either none or few skill trainings to their staff. This may partly contribute to poor performance, growth and sustainability of the MSMEs.

Trainings can bring fruitful results in work performance when they are directly related to the work of the enterprises and, when they match the need and ability of the trainees to take up what is offered. Considerable proportion of the enterprises reporting that they didn't provide relevant trainings to their staff implies that enterprises did not benefit as much as expected from trainings. The views expressed in group discussions of owners of enterprises has also revealed clearly this fact. For instance, FGDs in Hawassa with owners of MSEs that were engaged in leather and traditional cloth production emphasized that they found the skill trainings organized by vocational training institutions as not well prepared and relevant for their work. Some enterprises even did not want to participate in such trainings.

In terms of operational hours/days, about 53% of them (n= 301) reported working for more than 8 hours per day and about 93% for more than five days per week. About 45 percent (n=251) of the enterprise's owners reported that they conduct periodic stakeholder analysis. This is to mean the enterprises examine what possible stakeholders' interests prevail, such as that of customers, competing businesses, support agencies (governmental and NGOs) etc. that can affect their production and market performance. Of the total MSME owners interviewed, close to 75 percent of them had regular/permanent customers (Table 3). In terms of future plan, substantial proportion of the MSMEs reported the plan of expanding on the existing product and services (86.0%).

**Table 2: Background characteristics of the MSMEs surveyed n=564.**

Characteristics	No.	%
Age of enterprise		
3-5 Years	321	6.9
6-10 Years	212	37.6
>10 Years	31	5.5
Type of SMEs:		
Small	297	52.7
Medium	129	22.9
Micro	138	24.5
Sector of the SME		
Manufacturing- food	114	20.2
Manufacturing – leather	25	4.4
Manufacturing -Textile and garment design	110	19.5
Manufacturing- Traditional garment and ornaments	39	6.9
Manufacturing- Wood works and bamboo	82	14.5
Manufacturing- Metal woks and engineering	29	5.1
Manufacturing- other	48	8.5
Tourism and Hospitality	117	20.7
Total number of founders		
<5	343	60.8
5-10	197	34.9
>10	24	4.3
Sources of initial capital		
Founders’ own capital	497	88.1
Credit from microfinance/bank	105	18.6
Credit from relatives/friends	62	11.0
Other source	10	1.8
The current status of the business		
Fully operational	456	80.9
Semi operational	108	19.1
The type of work premise of the enterprise is		
Self/family owned	43	7.6
Rented from private owner	58	10.3
Rented from government shades	429	76.1
Free or subsidized rent from NGO	34	6.0

Source: Survey, August-September 2022

**Table 3: Operational profiles of the MSMEs, n=564**

Characteristics	No.	%
Engaged in similar type of work before you started your own business		
Yes	245	43.4
No	319	56.6
Years of experience in similar type of work		
<3 Years	54	22.0
3-5 Years	143	58.4
6+ Years	48	19.6
Training for any MSE members (leadership, finance, ...etc.)		
Yes	412	73.0
No	152	27.0
Number of employees having some training in skills related to the business		
None	127	22.5
Very few (2 out of 10)	152	27.0
Some (3-4 out of 10)	113	20.0
About half (5-6 out of 10)	65	11.5
More than half (7+ out of 10)	107	19.0
No. of hours per day the organization functions		
<=8 Hours	263	46.6
>8 Hours	301	53.4
No. of days per week the SME functions		
<=5 days	40	7.1
>5 days	524	92.9
Conduct periodic stakeholder analysis	251	44.5
Have regular/permanent customers	421	74.6
Use of technology		
Computer	75	13.3
Machinery	455	80.7
Payment and other software	88	15.6
Service vehicle	42	7.4
Future plan		
To switch to other business	23	4.1
To expand the existing product	485	86.0
To diversify the services	47	8.3
To close the SME	9	1.6

Source: Survey, August-September 2022

As presented in Table 4, 89% of the respondents were females while the remaining 11% were male respondents<sup>7</sup> (managers of women owned enterprises). About half of the respondents (49.3%) were in the age group 30-39. About 70% of the respondents were founder managers, and vice managers account for 26.1% and only 4.3% were non-founder managers. Substantial proportion of the respondents (68.6%) had 5-10 years' experience and 25.2% had less than <5 years' experience in the enterprise. Most respondents (42.2%) have high school level of education (grade 9-12). Level of education and years of experience of business owners/managers are characteristics that are expected to influence performance of the enterprises. Their association with MSMEs' growth are examined in subsequent sections.

**Table 4: Socio-demographic characteristics of the respondents (managers of MSMEs), n=564.**

Characteristics	No.	%
Sex of the respondents		
Male	62	11.0
Female	502	89.0
Age of respondent		
<30	156	27.7
30-39	278	49.3
40+	130	23.0
Position in the enterprise		
Founder manager	393	69.7
Founder vice manager	147	26.1
Manager	24	4.3
Years of experience in the SME		
<5 Years	142	25.2
5-10 Years	387	68.6
>10 Years	35	6.2
Manager's level of education		
No formal education	15	2.7
Primary and below (up to grade 8)	122	21.6
Grade 9 to 12	238	42.2
Vocational certificate	25	4.4
College diploma or training	96	17.0
Degree or above	68	12.1

Source: Survey, August-September 2022

<sup>7</sup> These are appointed male managers, but the enterprises are women-owned (as decision makers) The managers were responsible to run the operations.

## 7.2 MSMEs growth indicators

Table 5 presents the percentage distribution of the outcome variables. It can be noted that the women owned enterprises reportedly made some positive changes in most of the sustained growth indicators. Close to 80% of them witnessed some positive changes in their profit. More positive changes were reported in asset (91.5%) and capital (89.0%) and 58% reported growth in size of human resources. However, about 68% of the MSMEs reported that they either experienced no change or decline in the number of products/services produced (product diversification). The figures A to E (annexed) further portray the distributions of these variables.

**Table 5: Percentage distribution of the outcome variables (Change in profit, number of products, human resources, assets and capital), 2022.**

	No (No growth)		Yes (Some positive changes)		Total No.
	No.	%	No.	%	
Change in Profit	114	20.2	450	79.8	564
Change in Number of Products	381	67.6	183	32.4	564
Change in Human Resource size	237	42.0	327	58.0	564
Change in Assets	48	8.5	516	91.5	564
Change in Capital	62	11.0	502	89.0	564

Source: Survey, August-September 2022

To explore if there is association between the growth indicators and selected characteristics of the enterprises and owners, Chi-square analysis was run. Table 7A to 7E (see Annex 7) portray the distribution of the outcome variables (sustainable growth indicators) by selected factors. The results of the Chi-square analysis in Table 7A shows significant association ( $p < 0.2$ ) between change in profit and six of the variables: city, sex of respondent, years of experience in the enterprise, type of enterprise, type of work premise of the enterprise, and number of employees having some trainings. The results of the Chi-square analysis in Table 7B shows significant association ( $p < 0.2$ ) between change in number of products/services and nine of the variables: city, years of experience in the MSME, manager's level of education, type of enterprise, type of work premise of the enterprise, sector of the enterprise, engaged in similar type of work before starting the current business, number of employees having some training in skills related to the business, and number of days per week the MSME functions. The results of the Chi-square analysis in Table 7D shows significant association ( $p < 0.2$ ) between change in assets and eight of the explanatory

variables: city, sex of the respondent, position in the enterprise, age of the enterprise, type of enterprise, number of employees having some training in skills related to the business, engaged in similar type of work before starting the current business, and number of hours per day the enterprise functions. The results of the Chi-square analysis in Table 7E shows significant association ( $p < 0.2$ ) between change in capital and name of city, age of the enterprise, type of sector, type of work premises, and number of working days per week the MSMEs functions.

### 7.3 Type of Support for MSMEs

About 81.2% of respondents reported that they got some kind of support from the government. Training and provision of work premises are the most commonly reported support types (83.4% and 80.6%, respectively). The support related to monetary subsidy to boost operation, easy access to input materials and waiver of interest on loan were lower (less than 10%). But this seems changed during COVID period.

**Table 6: Percentage distribution of MSMEs by reported type of support, n=564.**

Characteristics	No.	%
Getting support from government	458	81.2
Training	382	83.4
Provision of work premise	369	80.6
Coaching and advise (Business Development Service)	208	45.4
Loan for start-up capital	125	27.3
Market linkage	102	22.3
Monetary subsidy to boost operation	45	9.8
Easy access to input materials	42	9.2
Waiver of interest on loan	31	6.8
Getting support from NGOs	103	18.3
Training	55	53.4
Coaching and advise (Business Development Service)	20	19.4
Market linkage	20	19.4
Monetary subsidy to boost operation	18	17.5
Loan for start-up capital	16	15.5
Easy access to input materials	15	14.6
Provision of work premise	8	7.8
Waiver of interest on loan	5	4.9

Source: Survey, August-September 2022

On the other hand, about 18.3 percent of the SMEs owners reported that they got support from the Non-Governmental Organizations (NGOs). The most commonly reported support from NGOs was training (53.4%), followed by coaching and advise (Business Development Service), market linkage, and monetary subsidy to boost operation. As expected, lesser proportion of SME owners received support related to provision of work premise and waiver of interest on loan.

Key informant interviews held with experts and program facilitators from city and sub-city administration offices from the selected study cites identified similar provisions that are organized by the administration to support formation and operation of MSMEs. The expert program facilitator from Jimma city administration stated that the city administration has been responsible to facilitate a conducive situation for the swift establishment of MSEs. This involved:

- Providing different pieces of training (skill and business management) by city administration experts or other stakeholders such as vocational schools and NGOs
- Provision of work premise (the city administration constructed and transferred shades for enterprises),
- Creating and providing market linkages and networks for MSEs' products.
- Facilitating access to finance from different sources. For example, the city administration has created a common platform with Sinkee Bank (formerly known as Oromia Saving and Credit Association) to enable the MSEs to get finance from the bank with less interest rate and a less complicated process.

Likewise, the expert from Addis Ababa, Kirkos sub city explained similar provisions and approaches that were followed in establishing MSEs. It was stated that the city administration:

- Facilitated finance /loan for the MSEs from Addis International Bank,
- Organized and delivered relevant pieces of training related to MSE operation and management (Business Development Service, (BDS) and other
- Facilitating free or subsidized rental working place;
- Facilitate getting working machinery for those in manufacturing – e.g., sewing machine
- Organized market opportunity through bazaars



The training package which is called Industry extension package comprised four main skill development programs/supports: including training in entrepreneurship, accounting and finance, technology transfer, and the fourth one is Kaizen principle, that focuses on organizing working premises and items in such a way that items and products are optimally stored and kept free from damage. Therefore, the city administration facilitates for MSEs to get training from technical and vocational colleges.

Similar frame works and provisions were implemented in Bahir Dar and Hawassa cities, according to experts interviewed.

#### **7.4 Determinants of Sustainability of MSMEs**

The analysis of the determinants of sustainability began with running bi-variant logistic regressions for each of the outcome variable to select potential variables for the multi-variable logistic regression analysis. All variables with p-value of  $<0.2$  were entered into the multivariable logistic regression analysis given in Tables 7-11 below.

Associations between explanatory variables selected for the multivariable logistic regression and change in profitability is presented in Table 7. For the predictive power of the final model (see the ROC curve in annex), was estimated as 69.8%, suggesting that the model has good predictive power. Of the six variables in the model, four of them have become significantly associated with the outcome variable. The results of the final model indicate that the odds of change in profitability decreased by 71% for MSMEs with female managers compared to male managers. Medium sized enterprises were 2.43 times more likely to score changes in profitability compared to small sized enterprises, whereas between the small and micro enterprises no significant difference was observed in profitability. Medium enterprises are bigger in capital and human resource compared to small and micro enterprises. That gives them better standing for profitability. No significant interaction effect among the variables was identified (Table 7). This finding is similar to that of another study which documented that the failure rate of MSEs increases as the size of the business decreases, resulting in an unacceptably high failure rate for smaller businesses (Watson & Everett, 2004).

It is needless to mention that the number of services/products play significant role in contributing to the costumers' satisfaction (Bickle, 2012). Table 8 presents the multivariable logistic regression for associations between selected variables and change in the number of product/services. The predictive power of the final model

was examined using the area under a ROC curve (AUC), which was estimated as 76.5%, suggesting that the model has good predictive power. Out of the nine variables in the model, five of them have become significantly associated with the outcome variable.

**Table 7: Adjusted Odds Ratio (AOR) with 95% confidence intervals for the factors associated with changes in profit, Sept 2022, n=564.**

Variables	Logistic regression model for change in profit		
	Odds Ratio	95% CI	p-value
Sex of respondent			
Male	1.00	-	-
Female	0.29	[0.10, 0.84]	0.0233
Type of SMEs:			
Small	1.00	-	-
Medium	2.43	[1.26, 4.68]	0.0081
Micro	1.41	[0.82, 2.39]	0.2107
The type of work premise of the enterprise is			
Self/family owned	1.00	-	-
Rented from private owner	0.78	[0.28, 2.21]	0.6458
Rented from government shades	0.92	[0.39, 2.16]	0.8543
Free or subsidized rent from NGO	3.69	[0.69,19.77]	0.1281
Number of employees having some training in skills related to the business			
None	1.00	-	-
Very few (2 out of 10)	0.83	[0.42, 1.63]	0.5917
Some (3-4 out of 10)	0.51	[0.25, 1.03]	0.0622
About half (5-6 out of 10)	0.62	[0.26, 1.48]	0.2796
More than half (7+ out of 10)	0.37	[0.18, 0.73]	0.0043
Use of technology	1.33	[0.99, 1.78]	0.0598
Sources of initial capital	0.45	[0.29, 0.70]	0.0005
Intercept	31.36	[6.86,143.33]	0.0000

/// **The AUC, model predictive value, was 70%**

The results indicate that the odds of change were 2.21 times higher for MSMEs with female managers compared to those with male managers. As expected,

the odds of change in the number of products/services significantly increased as the age of the enterprise increased. Those aged 5-10 year and above 10 years were 1.66 and 2.89 times more likely to change their products/services compared to the younger MSMEs. This is as expected because staying in the business for longer period gives naturally more exposure time to observe what is in demand in order to diversify products and services. Moreover, being in operation for longer period mean that enterprises had more opportunity to accumulate income and have financial capability to diversify in product and services.

In terms of sector, those in the cultural garment and ornaments were 2.32 times more likely to increase their product/services compared to the reference category (food producers). The likelihood of increasing the number of services/products decreased by 57% for those MSMEs which did not engage in similar type of work before starting the current business. This testifies that more experience in similar work has advantage in expanding the business, as expected. The change in number of products/ services was generally higher for MSMEs offering skill trainings to employees. On the other hand, the association between the educational status of the managers/ SME owners and the outcome variable was insignificant ( $p$ -value  $>0.05$ ). This indicates that skill trainings are more important to affect product and service diversification than just having formal basic education alone. The odds of increasing the number of products/services were 3.89 times higher for those functioning  $>5$  days per week compared to those which reported operating for less than 5 days per week. No significant interaction effect among the variables was identified (Table 8).

Previous studies conducted around the world confirmed nearly similar variables associated with sustainability. For instance, Woldie et al., (2008) reported that businesses with a limited liability status are more likely to grow than the sole proprietorship or partnership. Businesses older than six years have more of a tendency for growth potential than younger businesses

**Table 8: Adjusted Odds Ratio (AOR) with 95% confidence intervals for the factors associated with changes in the number of products/services, Sept 2022, n=564**

Variables	Logistic regression model for change in number of product/services		
	Odds Ratio	95% CI	p-value
<i>Sex of respondent</i>			
Male	1.00	-	-
Female	2.21	[1.05, 4.65]	0.0368
<i>Years of experience in the SME</i>			
<5 Years	1.00	-	-
5-10 Years	1.66	[0.99, 2.78]	0.0529
>10 Years	2.89	[1.17, 7.14]	0.0213
<i>Manager's level of education</i>			
No formal education	1.00	-	-
Primary and below (up to grade 8)	0.75	[0.21, 2.69]	0.6632
Grade 9 to 12	0.72	[0.21, 2.45]	0.6015
Vocational certificate	1.17	[0.25, 5.36]	0.8404
College diploma or training	0.95	[0.26, 3.47]	0.9442
Degree or above	2.07	[0.55, 7.78]	0.2840
<i>Sector of the SME</i>			
Manufacturing- food	1.00	-	-
Manufacturing – leather	2.28	[0.82, 6.29]	0.1121
Manufacturing -Textile and garment design	1.02	[0.53, 1.98]	0.9485
Manufacturing- Traditional garment and ornaments	2.32	[0.99, 5.43]	0.0527
Manufacturing- Wood works and bamboo	1.39	[0.70, 2.77]	0.3452
Manufacturing- Metal works and engineering	2.56	[0.96, 6.84]	0.0599
Manufacturing- other	0.79	[0.35, 1.79]	0.5704
Tourism and Hospitality	1.08	[0.57, 2.05]	0.8221
<i>The type of work premise of the enterprise is</i>			
Self/family owned	1.00	-	-
Rented from private owner	0.97	[0.37, 2.57]	0.9557
Rented from government shades	1.32	[0.60, 2.91]	0.4935
Free or subsidized rent from NGO	0.38	[0.07, 2.05]	0.2610
<i>Engaged in similar type of work before you started your own business</i>			
Yes	1.00	--	-
No	0.43	[0.28, 0.65]	0.0001
<i>Number of employees having some training in skills related to the business</i>			
None	1.00	-	-
Very few (2 out of 10)	5.27	[2.70,10.28]	0.0000
Some (3-4 out of 10)	1.94	[0.93, 4.08]	0.0789
About half (5-6 out of 10)	1.32	[0.54, 3.20]	0.5423
More than half (7+ out of 10)	3.26	[1.57, 6.77]	0.0016
<i>No. of days per week the SME functions</i>			
<=5 days	1.00	-	-
>5 days	3.89	[1.48,10.28]	0.0061
Government support	1.02	[0.89, 1.16]	0.8275
Intercept	0.02	[0.00, 0.14]	0.0001

The AUC, model predictive value, was 76%

Table 9 presents the multivariable logistic regression for associations between selected variables and change in human resources. The predictive power of the final model was examined using the area under a ROC curve (AUC), which was estimated as 76.4%, indicating that the model has good predictive power. Out of the eight variables in the model, three of them had significant association with the outcome variable. The odds of change decreased by 63% for SMEs with female managers compared to the reference category. There were also variations in changes in human resources across the type of sector. Manufacturing -Textile and garment design, and cultural garment and ornaments had lower likelihood (by 52% and 63%, respectively) of increasing their human resources compared to those in food sector. The odds of Increasing the human resources were 2.11 times higher for those operating >5 days per week compared to those operating for less than 5 days per week. The result shows strong and significant association between the use of technology and change in human resources. MSMEs using lesser technology had higher likelihood to increase their human resources.

Lilischkis (2011) defines a growing SME as a business with an average annual growth in employees or alternatively in turnover. It was found that MSMEs with male managers had greater likelihood of increasing human resources. There were also variations in changes in human resources across the type of sector. Manufacturing -Textile and garment design, and traditional garment and ornaments had lower likelihood of increasing their human resources compared to those in food sector. Operating for greater than 5 days per week increased the likelihood of changes in human resources compared to those operating for less than 5 days per week. The result shows strong and significant association between the use of technology and change in human resources. The poor use of technology among the larger proportion of SMEs could be poor networking and partnership. The findings of the study could be aligned to the diffusion of innovation theory which states that the introduction of new technology and non-technology innovation are the primary drivers of sustainability, competitive advantage, and efficiency for small and medium-sized enterprises (Price, Stoica & Boncella, 2013). According to Fagerberg et al (2004) SMEs with higher innovations tend to have higher income and employment. SMEs tend to be more sustainable when they cooperate with other businesses in order to reduce production cost, share technologies and form networking opportunities (Shinozaki, 2012). This is also supported by the famous stakeholders Theory of sustainability, which underlines the need to practice a culture accommodating suppliers, consumers, customers, and employee being their influential stakeholders with respect to the environment, economic and social structures (Hami et al., 2018).

Putting it differently, women owned SMEs would be required to take into account shareholder opinions and values (Shim, 2014) in order for the business to continue exist and thrive.

**Table 9: Adjusted Odds Ratio (AOR) with 95% confidence intervals for the factors associated with changes in human resources, Sept 2022, n=564.**

Variables	Logistic regression model for change in human resources		
	Odds Ratio	95% CI	p-value
Sex of respondent			
Male	1.00	-	-
Female	0.37	[0.17, 0.81]	0.0132
Age of enterprise			
3-5 Years	1.00	-	-
6-10 Years	0.70	[0.47, 1.05]	0.0871
>10 Years	1.20	[0.42, 3.44]	0.7362
Type of SMEs:			
Small	1.00	-	-
Medium	1.63	[0.95, 2.82]	0.0779
Micro	0.65	[0.41, 1.04]	0.0753
Sector of the SME			
Manufacturing- food	1.00	-	-
Manufacturing - leather	1.19	[0.41, 3.46]	0.7453
Manufacturing -Textile/garment design	0.48	[0.27, 0.87]	0.0155
Manufacturing - Traditional garment and ornaments	0.37	[0.16, 0.82]	0.0149
Manufacturing - Wood works and bamboo	1.63	[0.78, 3.41]	0.1910
Manufacturing - Metal woks and engineering	1.09	[0.37, 3.19]	0.8786
Manufacturing- other	1.37	[0.60, 3.11]	0.4542
Tourism and Hospitality	1.03	[0.57, 1.86]	0.9204
No. of hours the organization functions			
<=8 Hours	1.00	-	-
>8 Hours	1.46	[0.97, 2.20]	0.0715
No. of days per week the SME functions			
<=5 days	1.00	-	-
>5 days	2.11	[0.99, 4.50]	0.0527
Government support	0.97	[0.85, 1.11]	0.6674
Use of technology	2.31	[1.67, 3.19]	0.0000
Intercept	0.79	[0.24, 2.54]	0.6893

The AUC, model predictive value, was 76%

Table 10 presents the multivariable logistic regression for associations between selected variables and change in assets. The predictive power of the final model was examined using the area under a ROC curve (AUC), which was estimated as 74.7%. Only two variables (number of Government and NGO supports) appeared to have significant association with increase in asset. While government support positively impacts change in asset, the number of supports from NGOs seems to inversely impact the changes in asset building (Table 10). An objective explanation for this finding requires a further focused examination of enterprises that received NGOs' support.

**Table 10: Adjusted Odds Ratio (AOR) with 95% confidence intervals for the factors associated with changes in asset, Sept 2022, n=564.**

Variables	Logistic regression model for change in asset		
	Odds Ratio	95% CI	p-value
Sex of respondent			
Male	1.00	-	
Female	0.39	[0.09, 1.77]	0.2234
Manager's level of education			
No formal education	1.00		
Primary and below (up to grade 8)	0.50	[0.13, 1.95]	0.3180
Grade 9 to 12	0.52	[0.14, 1.91]	0.3272
Vocational certificate	1.00		
College diploma or training	0.35	[0.09, 1.39]	0.1350
Degree or above	1.00		
Position in the enterprise			
Founder manager	1.00		
Founder vice manager	2.05	[0.86, 4.88]	0.1054
Manager	3.90	[0.48,31.50]	0.2011
Age of enterprise			
3-5 Years	1.00		
6-10 Years	1.73	[0.86, 3.48]	0.1224
>10 Years	3.87	[0.47,31.55]	0.2066
Total number of founders			
<5	1.00		
5-10	0.70	[0.35, 1.42]	0.3227
>10	1.00		
Number of employees having some training in skills related to the business			
None	1.00	-	-
Very few (2 out of 10)	0.45	[0.19, 1.05]	0.0649
Some (3-4 out of 10)	0.52	[0.19, 1.43]	0.2038
About half (5-6 out of 10)	1.31	[0.31, 5.47]	0.7146
More than half (7+ out of 10)	1.65	[0.45, 6.00]	0.4469
No. of hours the organization functions			
<=8 Hours	1.00	-	-
>8 Hours	1.74	[0.91, 3.30]	0.0923
Government support	1.26	[1.01, 1.57]	0.0387
NGO support	0.69	[0.50, 0.97]	0.0312
Intercept	24.31	[3.27,180.93]	0.0018

The AUC, model predictive value, was 75%

Previous studies indicated that the kinds of support received determines the success rate of MSMEs. The finding evidenced that substantial proportion of the MSMEs reported that they got some kind of support from the government. The most commonly reported support was getting work premises, whereas support related to monetary subsidy to boost operation, easy access to input materials and waiver of interest on loan were lower. The low level of financial support by the government could be attributed to poor economy. Worldwide, the downturn in economic growth has contributed to a decrease in the financing of small businesses. The global economy decreased from 3.4 per cent to 3.0 per cent in 2019, which also affected the productivity and budget of the Ethiopian Government.

Table 11 presents the multivariable logistic regression for associations between selected variables and change in capital. The predictive power of the final model was examined using the area under a ROC curve (AUC), which was estimated as 75.8%, suggesting that the model has good predictive power. Five of the nine variables entered into the multivariable regression model have become significantly associated with the outcome variable (i.e the change in capital). The odds of change were higher by 2.37 times for SMEs aged 5-10 years compared to those recently established. Edwige et al (2013) in their study observed that business experience plays vital role for the success of entrepreneurship. Shinozaki (2012) states that an SME is considered as a high growth business when it relies on own capital. MSMEs in leather, and wood and bamboo had higher likelihood of increasing their capital (AOR=8.96 and AOR=4.95). The odds of increasing capital was lower for those having 5-10 founders (AOR=0.53) compared to those having <5 founders. This implies that even though initial capital could be higher when there are more number of founders, managing the team dynamics is easier when there are less number of founders, which could result in better work environment and contributing to increase in capital in the MSMEs. The likelihood of increasing the capital decreased by 81% for MSME owners with working premises rented from private owner compared to work premises owned by families. The result also showed that capital formation did not significantly vary among enterprises working at own family premise compared to those having work premises free or subsidized rent from NGOs or government shades. It can be deduced from this that having free or subsidized low rental workplace has positive contribution to capital formation. The odds of increasing the capital decreased by 72% for those operating >5 days per week compared to those operating for less than 5 days per week. This could be because more working days mean increased cost of production in terms of power and utility consumed and increased labor time to pay which may outweigh the amount of revenue return from



the increased workdays. In other words, the optimal number of working days per week is less than 5 working days, considering the cost and benefit towards increasing capital. This may need further closer examination of the work process of enterprises. The result shows strong and significant association between number of supports from NGOs and capital formation (Table 11).

Our findings indicate that more than half of the MSMEs had 3-5 years' experience in the same type of business. As it was hard to generate information on failed MSMEs due to access to their address, it was difficult to estimate the failure rate. Information from some available owners of failed business and informal discussion with the concerned office indicates that failure rate for women owned SMEs in the study areas were serious and causes of concern. Based on the interview of three failed SMEs owners in Addis Ababa, Hawassa and Bahir Dar city administration, three of the major factors for failure are internal disagreements emanating from work process decisions, unaffordable workplace and the effect of COVID 19 outbreak. Particularly in the cafe and restaurant business, the major cause of business closure (in Hawassa) was loss of demand and customers after COVID-19. Studies conducted around the world indicate that failure rate of SMEs is generally referred to as "nine out of ten firms fail in the first year of operation" and "80% of new start-ups fail during the first 3 years" (Gore and Fal ,2011). Other statistics reported that three out of five fails within the first few months (Bowen et al., 2009), approximately 40 to 50% of small firms established cease trading within three to four years (Urwin et al., 2008:), and approximately 70 to 80% new small businesses fail in the first year (Bradley & Cowdery, 2002). According to Mboniyane (2006), the South African small business failure rate is extremely high, ranging from 50 to 80% of started businesses that will eventually fail within the first five years.

**Table 11: Adjusted Odds Ratio (AOR) with 95% confidence intervals for the factors associated with changes in capital, Sept 2022, n=564.**

Variables	Logistic regression model for change in capital		
	Odds Ratio	95% CI	p-value
Age of enterprise			
3-5 Years	1.00	-	-
6-10 Years	2.37	[1.21, 4.63]	0.0118
>10 Years	1.95	[0.41, 9.31]	0.4027
Sector of the SME			
Manufacturing- food	1.00	-	-
Manufacturing - leather	8.96	[1.05,76.30]	0.0448
Manufacturing -Textile and garment design	1.61	[0.72, 3.56]	0.2430
Manufacturing- Traditional garment and ornaments	4.61	[0.95,22.51]	0.0587
Manufacturing- Wood works and bamboo	4.95	[1.52,16.11]	0.0079
Manufacturing- Metal woks and engineering	3.99	[0.80,19.94]	0.0917
Manufacturing- other	1.41	[0.51, 3.90]	0.5107
Tourism and Hospitality	2.23	[0.97, 5.13]	0.0595
Total number of founders			
<5	1.00	-	-
5-10	0.53	[0.29, 0.99]	0.0471
>10	1.08	[0.21, 5.47]	0.9257
The type of work premise of the enterprise			
Self/family owned	1.00	-	-
Rented from private owner	0.19	[0.05, 0.79]	0.0227
Rented from government shades	0.55	[0.15, 2.00]	0.3658
Free or subsidized rent from NGO	0.46	[0.09, 2.51]	0.3725
Number of employees having some training in skills related to the business			
None	1.00	-	-
Very few (2 out of 10)	0.44	[0.19, 1.03]	0.0599
Some (3-4 out of 10)	1.64	[0.59, 4.61]	0.3449
About half (5-6 out of 10)	1.24	[0.38, 4.07]	0.7274
More than half (7+ out of 10)	0.75	[0.30, 1.89]	0.5483
No. of hours the organization functions			
<=8 Hours	1.00	-	-
>8 Hours	1.63	[0.90, 2.96]	0.1072
No. of days per week the SME operates			
<=5 days	1.00	-	-
>5 days	0.28	[0.06, 1.27]	0.0991
NGO support	0.73	[0.56, 0.96]	0.0227
Intercept	28.68	[3.66,224.38]	0.0014

The AUC, model predictive value, was 76%

***Qualitative findings on drivers and positive factors influencing survival and growth of MSEs:***

In view of supporting the quantitative data, qualitative data from key informant interviews (KIIs) and focus group discussions (FGDs) were collected pertaining to drivers and positive influencers of survival and growth of MSEs.

Key informant interviews with experts from all study sites alluded that government provisions upon establishment and in the course of operation of MSEs were crucial in the survival and growth of MSEs.

The startup initiatives of free or subsidized workplace, capital loan, and free training are huge support and served as bouncing board to start business and contribute to minimizing cost of production. The Labor and Training Office in collaboration with other government and non-government organizations provided training related to MSEs' specific area of work. In addition, through the course of operation, getting stronger and continued support that can boost production capacity, like getting machinery for free or even with long term credit, usually through NGOs' support and, subsidized access to raw materials or input materials helped to minimize production costs and be a factor in sustainability.

MSEs with good take up of these provisions and that have internal strengths and commitment to grow were successful as iterated by the experts. Internal strengths of MSEs expressed as sufficient and pertinent education and skill of members, members cohesion, teamwork, commitment, and hard work to succeed contributed a lot for survival and growth of MSEs.

For instance, the expert from Addis Ketema sub city in Addis Ababa sited exemplary MSEs that can serve as cases. He stated that:

*“Those who used the intervention well could grow. For instance: Enterprises who have no training background, after they got the training, showed a change on their work. For instance: a certain blocket manufacturing enterprise, when established their level was extremely at low position, but now they are at a good condition. The other one an Engineers Enterprise, established in 2008 E.C. It was established after the members graduated from university, they got working place, machinery, one-million-birr financial support/loan from government and entered to work, now they have 38 permanent workers, and they own car and with best working capital.”*

This observation implies that preparation in training and skills is crucial for picking the right sector and for success in the business. Educational background and

later skill upgrading are important factors. While infrastructural and resource provisions are basic requirements for growth of MSEs, it was stressed by most of the experts that internal cohesion of MSE members was observed to be an indispensable factor for an enterprise's sustainability and healthy growth.

Views from FGDs held with MSE heads regarding drivers of sustainability and growth are summarized below.

*Internal factors:*

Discussion with MSE owners revealed that attitude of members with strong commitment to stay in business and strong teamwork among members, by supplementing each other's capability are important internal characteristic for sustainability. A participant mentioned that she considers one strength of her enterprise to be those members with prior experience in food preparation and restaurant work mentor other members to develop their skills and that helped strengthen enterprise capacity.

An FGD participant in the leather production enterprise stated the following, appreciating their teamwork as a factor for their success.

*“For our sustainability the driver is our strength to work as a team. We always think to grow and work to achieve our objectives. For instance, our work is designing and producing shoes, we discuss on how to develop new design and attract our customers with affordable prices.”*

From discussion with MSE owners in Jimma it was learned that they strongly believe that their internal cohesion having similar experience, as returnee migrants from middle east countries, and their resilience to make the enterprise survive is a positive factor for their enterprise's survival. In Jimma where returnees from unsuccessful migration have formed MSEs, they have similar attitude and behaviour of commitment to work hard and make their enterprise be successful. A participant of FGD enterprise owner in Jimma stated that:

*“I don't want to go back to the Middle East (Arab Hager). I have lost everything of mine there, my age, my dream, my money, my aspiration. More or less most of us in our enterprise have the same experience of migration. Therefore, to avoid that possibility we are working very hard even if we are getting very less.”*

*External drivers of sustainability:*

As mentioned in the FGDs, through the course of enterprise operation, the market linkage created through regular bazaars helped a lot for MSEs in textile and leather production to sell their products and make profit. It is clear that such bazaars, apart from selling items, create opportunity for future connectivity with clients. Trainings given by NGOs for machine operation are also crucial for increasing MSEs capability.

## 7.5 Challenges Reported by MSMEs

From survey respondents the overall percentage distribution in Table 6 indicates that inflation appeared to be the most commonly reported challenge, where about 66.8% strongly agreed to such challenges. Insufficient availability of raw materials is another serious challenge where 53.9 percent of MSMEs strongly agree to. About 38.8 percent and 37.2 percent of the MSMEs strongly agreed to lack of access to working capital and to lack of adequate support from concerned stakeholders to enhance financial management, respectively.

**Table 17: Percentage distribution of MSMEs owners by reported challenges, Sept 2022, n=564.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Lack of working and production infrastructure (electricity, tele, water, road)	12.8	18.8	5.1	30.5	32.8
High rental cost of facilities	18.6	30.0	8.2	21.3	22.0
Lack of access to working capital	12.4	9.0	8.3	31.4	38.8
Lack of adequate support from concerned stakeholders to enhance financial manage	11.5	11.0	5.9	34.4	37.2
High tax and poor incentives by the government	13.5	15.6	8.2	28.9	33.9
Insufficient availability of raw materials	8.2	8.7	5.7	23.6	53.9
Unwanted inter mediation by brokers and poor market performance	21.8	22.7	8.9	21.5	25.2
Household workloads	22.0	30.7	13.7	19.1	14.5
Inflation	6.7	4.0	5.4	17.1	66.8

Source: Survey, August-September 2022

Focus group discussions with selected MSME heads revealed more vividly the challenges faced by enterprises.

*External factors:* It was learned from all the FGDs held that most of the barriers and challenges faced are common for many MSEs. The major barriers and challenges identified from the discussions were:

- Challenge to get working capital/loan due to unattainable requirements set by financial institutions, (guarantee, high interest rate with a short loan repayment period);
- The souring cost of raw materials from time to time and their unavailability and shortage as well;
- Infrastructural problems related to unsuitable workplace assignment, unavailability and disruption of basic utilities such as electric power, water supply and decent toilet,
- Limited market linkages at times, and
- COVID-19 induced disruption of work that resulted in loss of income.

*Shortage of working capital and difficulty in getting loan:* The most prominently stated challenge was shortage of working capital, and the difficulty of getting loan. It was mentioned that requirement set by financial institutions are unaffordable for small enterprises. To get loan from microfinance institutions enterprises were required to give guarantee in the form of getting a cosigner that is a regular employee with big enough salary. This became an obstacle as it is difficult for them to get a cosigner. Moreover, the participants stated that the interest rate is high and loan repayment period is short which made it difficult to meet, especially where business is slow after the COVID 19 induced economic disruption.

Regarding this, it was learned from FGDs in Hawassa that:

Their MSEs wanted to expand their work and produce more but the main obstacle is lack of money or capital. They cannot meet the criteria set by microfinance institution in their area (OMO micro finance) to get loan. Another view forwarded in an FGD of cafe and restaurant owners from Hawassa was that some enterprises do not even want to take loan and expand, because they think that the interest rate is too high and payment duration is short. Therefore, instead of being indebted they opt to go by investing their own profit. This could be the view and practice of more MSEs, and it looks that this hinders expansion and growth of enterprises as they cannot raise big enough capital as they could get from loan.

One of the main limitations for the sustainability of MSMEs has been described as access to finance (Ye and Kulathunga, 2019). Andrieş et al (2018) have shown that poorly developed financial markets, as well as inadequate financial instruments in developing economies, have led to poor distribution between business organizations of financial sources. Restricted access to finance has therefore been identified as one of the key obstacles to the full realization of SMEs' capacity (Anton and Bostan, 2017). The finding is aligned to the resource-based view theory described in the first section of this report. The theory pointed out that resource possessed, and the way it is utilized would give more results for business sustainability (Penrose,1959). However, the resource-based perspective of firms' sustainability may not apply to small and medium-sized enterprises since they don't have adequate resources to ensure their sustainability (Penrose,1959). De Lalaingstraat (2013) mentioned that access to finance is considered as one of the most important problems for SMEs around the world. Among the most pressing infrastructure related challenges reported by respondents were continued power interruption, lack of water facilities and remoteness of the workplace. For instance, lack of water supply and decent toilet is a profound problem threatening closure of a food service enterprise. Unsuitable location of the workplace where there are no client access warranties failure of the business. Similarly, enterprises that are power dependent require mostly if not always uninterpreted power supply. The cost of raw materials is another major hindrance affecting production. It was noted that most MSEs couldn't afford to buy enough raw materials according to their production capacity mainly due to souring cost, exacerbated by increasing exchange rate.

*Shortage and souring price of raw materials and inputs for production:*

It was raised with emphasis in the FGDs held that there is a challenge in availability and affordability of raw materials and accessories for production, particularly in textile and garment, and the leather product industry, as reported from MSEs in Hawassa and Addis Ababa. While there is difficulty in getting loan to expand production, it was learned that even to maintain their existing level of production enterprises are challenged to get raw materials and accessories for manufacturing. It was mentioned that either materials are not available on the market at times or too expensive for them to afford. Prices also fluctuate. The current economic situation of the country as a whole, particularly souring inflation and hike of cost of raw materials and accessories (leather and some imported textile materials and accessories) made it difficult to produce as much as the market demands.

All these undermined productivity and workers were forced to work less hours per week, as they were not able to engage fully.

An FGD participant from the leather product enterprise said this:

*“Our challenge was availability and affordability of raw materials. The price of raw materials is unaffordable.... Sometimes even when you want to buy accessories with the current market value you can't get the material you need, in the market. There is a big problem related to supply of accessories, we can't get these materials in the market that help us to finish the product we started to produce.”*

Related to MSEs in leather production, change in production line to lesser quality material is the option taken according to FGD participants. All of the participants of the FGD from the leather product sub sector in Hawassa reflected that, the current market situation forced enterprises to divert from leather products to synthetic, because the leather and accessories were becoming expensive from time to time.

*Infrastructural problems and gaps:*

Even though free or subsidized workplace or shades were availed by the government to MSEs it was raised in the discussions that some of the places are not suitable for production and market access to services MSEs provide - where clients can access the services. The allocation of workplaces to MSEs may not be suitable for the work they do. For instance, an FGD participant from cafe and restaurant business, in Nifassilk Lafto sub-city in Addis Ababa described their situation as follows:

*“The place we were given for a café and restaurant business was not suitable, being at the back side of the main road. Moreover, the location is nearby river with unpleasant smell in the rainy season that discourage customers to come for service; In addition, there is no tap water and toilet was not present since the start time of the enterprise. This made our customers prefer cafes and restaurants that have better services compared to us.”*

Workplace that lacks basic amenities such as water and toilet facility made customers of MSEs in food industry to prefer other competing enterprises with better facilities and thus cause loss of business for those MSEs located at poor workplaces.



Likewise, another infrastructural challenge mentioned by MSEs in manufacturing such as those in leather products and, textile and garment, which need continuous electric power supply, was repeated electric power outages that deterred the productivity as the work is totally dependent on electric power for machines to operate.

A participant from leather product enterprise stated that:

“Our problem is electric power, for instance in 2013 EC alone throughout the year we couldn’t work with full capacity because the power continuously became on and off. Our repeated complaint to authorities didn’t get a solution.”

This is indicative of infrastructural details that need to be attended for those enterprises like textile and garment, leather, wood and metal works that need continuous power supply. For each sub-sector it has its own indispensable requirement: Like those in food production water supply and decent toilet are indispensable, as for the above-mentioned firms uninterrupted power supply is crucial to sustain their work.

*Prolonged effect of the COVID 19 shock and the souring cost of living:*

The COVID-19 pandemic has had an impact on all economic sectors and institutions, including small and medium-sized enterprises (SMEs) (Cepel et al. 2020). The analysis indicated that COVID-19 had detrimental impacts on performance of SMEs in Ethiopia. The negative impact of COVID-19 on the nascent manufacturing sector, which is dominated by labor intensive industries, is a double blow of lower demand and the costly task of physical distancing in the workplace that stay open (UN Ethiopia, 2020). The assessment, recognizing the effects in the supply side, measures aimed at slowing the spread of the virus such as workplace closures and travel bans have triggered a visible drop in output and employment. These measures hit the self-employed and smaller businesses the hardest, especially in informal sector where the gender dimensions are very evident. Shedding workers, results in lost wages, on the enterprises side major liquidity crunch and running the risk of not being able to repay their debts. Either defaulting or having to reschedule loans will imperil the financial sector, in the absence of large-scale public intervention. From the demand side, “consumer demand has fallen as individuals reduce trips to the market and generally reduce their consumption levels and draw down savings and other assets (if available) in the face of heightened uncertainty and rising public concern about the pandemic”. Many countries worked hard to

implement various financial and non-financial support measures to prevent the long-term impacts of the pandemic, but the efforts made in Ethiopia seems to have brought little economic benefits to MSMEs.

It was learned from the FGD discussions with leather producers that following the COVID 19 incidence market and demand for their product fell drastically and they couldn't sell their products at quoted prices. They were forced to sell their products at production cost or even for less than that just to be able to pay for their workers. Some participant mentioned that they were even forced to sell their machine so that they pay the workers' salaries and also use the money for own survival. The discussions also revealed to support survival and continuation of MSEs, financial aid was supposed to be given by government and/or some NGOs, however that reached only a few of the MSEs but not most others.

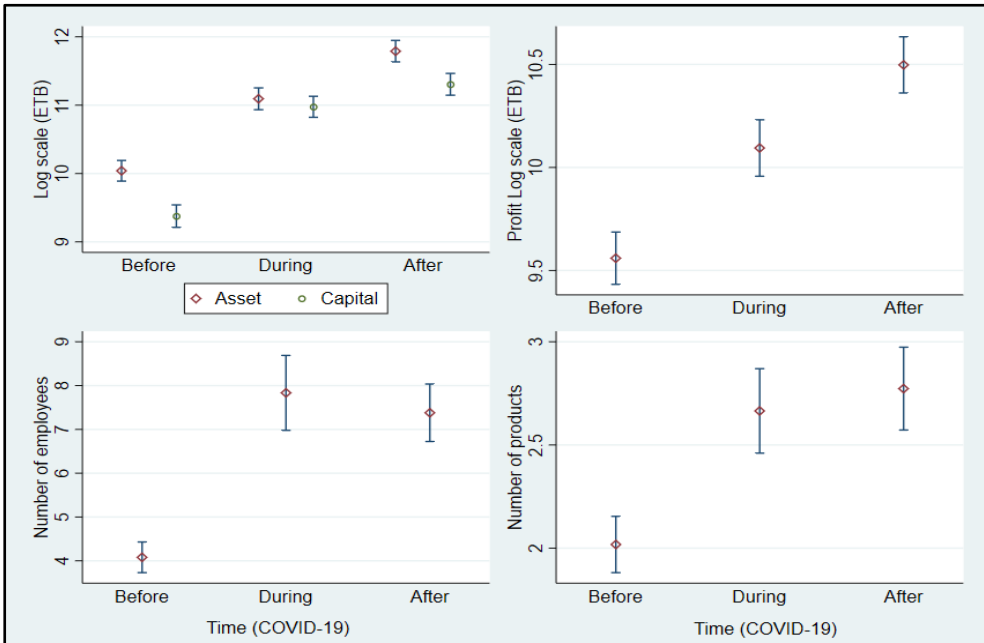
Coupled with this the increasing cost of living the country is experiencing in recent times has huge effect on MSEs' operation. The direct effect is increasing cost of raw materials for their production, as discussed earlier. On top of this the recent instability in parts of the country hindered distribution of their products.

An FGD participant from Addis Ababa operating in textile production expressed the following:

*“We are among the disadvantaged, because of the national condition of Ethiopia. Previously our products were distributed to different regional states of the country, but now challenged as the peace condition does not permit us to distribute our products in different cities for wholesalers.”*

Based on data generated from the survey on enterprise growth/change indicators, it can be seen from the graph below that COVID-19 pandemic affected some of the sustainability dimensions, even though the pattern of change is not clearly linear. The graphs show confidence intervals on the five indicators.

**Figure 3: The effects of COVID-19 on sustainability**



*Gaps in training and advisory support by experts:*

One of the provisions of the government in the establishment of MSEs through the sub-city administration offices was capacity building of MSE members through pertinent training and skill development. However, another problem that was revealed in the discussion is regarding quality of skill development training and advisory support organized by the Labor and training unit in sub-city administration. The FGDs revealed that MSEs are of the view that in some instances trainers have great skills limitation by themselves, are not well qualified and some of the training given were not relevant for them.

*Gap in knowledge and skills* was mentioned by participants as there is a need to get more relevant training s to produce quality products. Furthermore, the participants mentioned that there is a need to be trained on maintenance of their working machinery by members. Maintenance of machinery costs a lot, and they suggested being trained to do basic maintenance of their machinery.

An FGD participant from leather product enterprise in Hawassa, reflected that

*“We also need a training that help us to fix the machinery ourselves, because we spend additional costs for skilled personnel to maintain the garment and leather machinery.”*

It was also mentioned that many times it is difficult to get technician to fix machinery in Hawassa and they are forced to find one from Addis Ababa, which increases the cost of maintenance.

In terms of the skill of financial management and record keeping, our close observation during the field work witnessed that most SMEs had very poor business record keeping culture and poor tendency in building relationships with customers through extensive market research. Well-focused sales methods and attention to individual detail are likely to encourage customers to become more loyal towards a business (The Times 100, 2013). The poor record keeping could be attributed to a range of reasons, but more importantly lack of technologies and skilled manpower are commonly reported. Grundling and Kaseke (2010), in their study in South Africa, found that 46.1% of small business owners kept financial records where the most common financial owners keep record of are the total sales, stock and cost of sales. It was reported that several small business owners do not understand the value of accounting skills as well as the accounting function, which is often the beginning of business failure (Okoye et al 2017).

#### *Market linkage:*

Limitation of market opportunities were mentioned as challenge by MSEs particularly in Bahir Dar and Jimma. Participants of FGDs were of the opinion that city administrations need to do more like in cities in Addis Ababa and Hawassa to create more market linkages like regular bazaars and other means.

The discussion revealed that most of the leather producer enterprises in Jimma town have a big problem regarding market access and network. Participants argued that it's very difficult to be profitable in their city by producing leather and related products.

One of the participants stated that:

*“The only good season of the market for our product is the students' graduation period. During graduation time Jimma university students and different people who came across Ethiopia, these people are buying our products for souvenirs and other purposes.”*

In Bahir Dar similar observation was made by MSE leaders. They voiced that city administration need to do more to create market opportunities including possibility of exporting their products.

*Internal conflicts among members of enterprises:*

Absence of teamwork and lack of trust and varying levels of commitment to work are mentioned as serious problem by participants of FGDs. It was possible to learn from one FGD in Addis Ababa that lack of cohesion and discipline among the members of their enterprise as one internal challenge affecting operation of their enterprise. According to the participants, some of the members of their MSMEs are not committed enough to sustain or transfer the enterprise to the next level. Participants mentioned that the way the enterprise was established in the first place could have a certain amount of impact on the cohesion of the members. In a particular case a participant said that when the enterprises are formed by the city administration there are cases where members may not know each other prior to formation.

An FGD participant revealed a case as:

*“For example, to tell you my story, first our woreda /district office/ announced that they are registering women who want to establish MSE, Then I got registered. After some time, they called me and told me to establish MSE with people I did not know and see before that day.”*

FGD participants are of the opinion that such cases could result in absence of common interest, disagreements and mistrust among members and leading to dysfunctional work environment. From and FGD held in Jimma city it was possible to learn more on internal barriers which participants consider as major challenge. There are women MSE members that face frequent conflict with their spouse about their business on the enterprises, quarrels among the members of their enterprises because of different matters, and different attitudes of members about the loan and other sources of finance based on religious differences. This implies again that in the formation of MSEs it is important that members must share common interests and attitudes.

*Specific gender-based challenges to women owned enterprises:*

It is worth mentioning here that fundamental barriers and challenges of female owned MSMEs are similar to that of any MSME regardless of who owns the MSE. The aforementioned findings on factors affecting sustainability and growth of MSMEs are also common to that of men owned MSEs as well.

Pertaining to women owned MSEs only, challenges experienced by members that can reflect on the operation and survival of the enterprises were iterated by participants of FGDs as follows:

Women MSE leaders and members are forced to limit their working hours in the enterprises, in order to handle household responsibilities, particularly when they have young children or pregnant.

One of the participants shared her experience as:

*“Two or three years ago I used to work in my enterprise while I was carrying my child. When I went back home, my family expected me to cook food and do domestic chores by myself. My husband did not help me by any means, and he always told me to stay at home rather than juggling myself between work and home.”*

The participants revealed that some of their enterprise members and their friends in other enterprises have been pressurized either to leave their enterprises or transfer the right of ownership to male members of their families due to competing household responsibilities.

Other factors told in the FGDs as characteristic of female owned firms that may limit growth of the enterprise are some women establish their MSMEs to better balance their work and family lives. Wealth is not their primary focus, but rather finding money to meet their basic needs, so most remain as smaller enterprises. Since their level of involvement could be limited due to household responsibilities, they prefer lower-risk opportunities and are willing to settle for lower returns.

Finally, it is worth to mention that the very few available key informants of failed business owners mentioned three critical challenges/ reasons for the close-down of their business. internal disagreements emanating from work process decisions, unaffordable workplace, and the effect of COVID 19 outbreak. The effects of COVID-19 were pronounced more among the cafe and restaurant business in Hawassa, leading to loss of demand and customers following the pandemic. It is noted that the Hawassa enterprise is a micro and already not a strong one. On the contrary, however, the Cafe and restaurant business from Addis Ababa with 22 members and bigger capital had survived after the pandemic. Another major cause of dissolution was lack of affordable workplace after they were evicted from their subsidized shade after their subsidized lease of 5 years ended. The enterprises are expected to graduate to the next level and work independently on their own workplace after 5 years. Owners of failed MSMEs in Bahir Dar city had a bit different reason for business closure. They mentioned breakdown of machine /dynamo and inability to afford to replace it was the major reason for failure.

From interviews conducted with city administration experts and program facilitators it was possible to learn that the experts observed similar challenges and barriers were faced by MSEs as identified in the FGDs above. Regarding failed enterprises common observations of interviewed experts on causes were disagreements due to work related issues or other reasons, lack of trust and uncooperative attitudes among members of MSEs are influential factors for failures and dissolution of many MSEs. In fact, almost all informants mentioned that absence of smooth interrelationship among members is one common factor in most poorly performing and dissolved MSEs. One possible factor for absence of smooth interrelationship and mistrust among members could be members do not know each other prior to forming MSEs and may not have common business interest.

*Observations on failed business by program facilitator experts:* The key informants reported that a number of MSEs discontinued business and closed, due to factors that are internal and external. Many of the failed enterprises are those at micro level. They faced losses due to poor market performance affected by a number of factors. External factors mentioned are, shortage of raw materials for their product or unaffordable increase in price of their input materials, disruption of their market linkage due to COVID and loss of demand to their products. Following the COVID-19 outbreak a number of negative factors occurred affecting operation and marketing of enterprises. Namely, problem in accessing input materials for their product especially if materials are imported, or even if available prices of the input materials increased significantly due to inflation and scarcity, making production costs to increase on one hand. On the other, demand for products and services fell down to lowest level, because of the general feature of consumer reservations to spend more than of basic necessity. For instance, production of Enjera for sale stopped almost 100% as the demand fail sharply as potential buyers, restaurants and educational institutions, were closed.

On the other hand, from the interviews with city administration experts it was possible to learn that they consider that there are gaps in the nature of support and facilitation from the side of city administrations which could be constraints to survival and growth of MSEs.

An expert interviewed from Jimma forwarded the gaps on the side of implementing officers in the monitoring support provided as

*“We did not create awareness about MSEs and their importance for the members of MSEs.; We don’t implement the MSE strategy as it’s stated in the policy. And inadequate communication between the MSEs and different*

*stakeholders. We don't create sufficient market opportunity and network for our MSEs, which is compatible with their demand.''*

From another interview with an expert from Addis Ketema sub-city, Addis Ababa described his observation regarding serious problems affecting growth of MSE as:

*"Most MSEs expect the government to accomplish every activity for them rather than themselves taking the initiative to solve problems. For instance: to make market integration, they did not want to search for markets and networks by themselves and the interaction they have with regional traders was too weak. They only expect all things from the government. Enterprises with such kind of character have high probability not showing change"*

The same informant also iterated that "...some MSEs were abusing funds for personal use after they got financial support from government. Members divide this financial support among themselves for individual purposes rather than for the growth of the enterprise. So, this could be also a reason for enterprise failure."

## **8. CONCLUSION AND RECOMMENDATIONS**

The study has primarily aimed at examining the sustainability of women owned MSMEs and its determinants in Ethiopian hospitality and manufacturing industry. Given the increasing economic benefits of MSMEs in Ethiopia, this study could be timely and useful for increasing our understanding of the key factors affecting their sustainability.

This study provides empirical evidence on the determinants and challenges of SMEs based on data from 564 sampled women owned SMEs drawn from five major cities of Ethiopia. Results of qualitative and quantitative analysis show that a range of variables determine the sustainability of women owned MSMEs in Ethiopia (from the perspective of profitability, products/services, changes in human resources, capital, and asset). Changes in profitability was higher for SMEs with female managers compared to male managers, being medium sized SME is more advantageous in making profit. The number of products and services that enterprises offer is positively impacted by age of the MSMEs, working in traditional garment and ornaments, experience in similar business area before establishing the enterprise. The study concluded that being male managers, working in manufacturing -Textile and garment design, and traditional garment and ornaments, operating for greater than 5 days per week, and use of technology increased the likelihood of changes in human resources. On the other hand, change in asset was determined by the level of



support the SMEs got from the government. On the other hand, the changes in capital were higher for SMEs with >5 years of experiences, those in leather, and wood and bamboo, having smaller number of founders (<5), those with work premises owned by families, and those with the number of supports received from NGOs. Transforming the MSME sector into a driver of job creation and economic growth requires understanding of the variables that impact the growth of MSMEs in Ethiopia.

Analysis of key informant interviews and focus group discussions indicated that the survival of the MSMEs is challenged by at least five major factors: 1) challenge to get working capital loan due to unattainable requirement set by financial institutions ; 2) the souring cost of raw materials from time to time and their unavailability and shortage; 3) infrastructural problems related to unsuitable work place assignment, unavailability and disruption of basic utilities such as electric power, water supply and decent toilet; 4) limited market linkages, and 5) COVID-19 induced disruption of work that resulted in loss of income.

The study also found that the effect of the disruption caused by the COVID 19 outbreak is still being felt as enterprises had lost their income in those periods and most of them needed to restart the business with lower capital. One of the main challenges mentioned was difficulty in getting loan as the requirement is difficult to meet. This need to be given due attention by the government to find a better and efficient way of facilitating loans. Coupled with this, the increasing cost of living the country is experiencing in recent times has huge adverse effects on MSEs operation. Given the high and increasing cost of raw materials, the concerned authorities should make all efforts in changing the production line that can use affordable raw materials.

The analysis indicated that poor infrastructure has detrimental impacts on sustainability of women owned MSMEs. While availing affordable work premises is important and commendable, the facilities of the premises must have minimum standard requirements, and these requirements must be well thought of and put in place at the time of establishment of MSMEs.

In improving the poor market linkages, particularly for those in the design and garment industry, the relevant government office should make all efforts in establishing promising and sustainable linkage between the producers and consumers. Encouraging the use of technology to get into online marketing is an emerging approach which MSMEs can benefit from. This could better be accompanied by demand driven trainings and related technical supports, with the intent of filling-in the knowledge and skill gaps of MSMEs owners. Fruitful training should be well planned to include detailed need assessment of enterprises by sector,

with consideration of participant backgrounds, involving on-the-job training and with follow up on implementation of skills. For instance, training on machinery maintenance for the MSE members would significantly reduce disruption of production due to machine problem and also save cost of maintenance for MSMEs. Similarly, workshops, training, and seminars to improve the financial awareness of MSME staff should be organized. Most importantly, such training should cover bookkeeping, financial statement analysis, risk analysis, cash flow analysis, business environment analysis, investment management, and development of project proposals.

The overall findings of the study strongly suggest that sustainability of women owned MSMEs in Ethiopia would largely depend on the country's ability to significantly reduce the above-mentioned challenges (poor access to finance, technology, workspace, market linkages, input supply and other man-made constraints). As presented in the preceding sections, the cross-sectional design employed in this study limits cause-effect associations between the five dimensions of sustainability and the key predicting variables, a cohort analysis would be invaluable in corroborating the present findings and provide more clarity to the multiple possible effects examined in the present study. Investing in national level longitudinal/time series data would help Ethiopia to address changes in behavior of SMEs, practices, and outcomes across years.

Finally, it is worth mentioning the strength and limitation of the study, and potential areas of research. As there are limited studies conducted addressing the association between various factors and level of sustainability, the findings of the present study will be useful in program planning and monitoring activities pertaining to SMEs. While the present study provides ample evidence on the nature and determinants of women owned SMEs in Ethiopia, it is important to note that the findings could not show the temporal relationship between the main exposure variables and the five outcomes of interest. Some perceptual factors, management skills, personality, attitudinal, and motivation were not included in the study. On the contrary, some previous studies managed to report such variables as leadership qualities, updated market information, ability to associate with others, self-confidence and optimism, capability to predict, initiative, responsive to suggestions/criticism, extra-ordinary energy and diligence, resourcefulness, flexibility and sociability, mobility and drive, hardworking ability, aptitude to undertake risk, vision and foresight self-motivation as critical factors for success of SMEs (Kumaresan, 2009; Mahima, 2010; Ezekiel ,2016). Also, since the explanatory variables did not consider changes over time, it is hard to assess the gradients of these

factors on the five outcome variables studies. This may necessitate the collection of longitudinal data to see the temporal changes. The study solely focused on limited number of sectors due to time and resource limitations. Given the above limitations, we suggest future studies to consider more robust study designs (such as longitudinal design) to collect and analyze time series data to understand the dynamics of women owned SMEs in Ethiopia.

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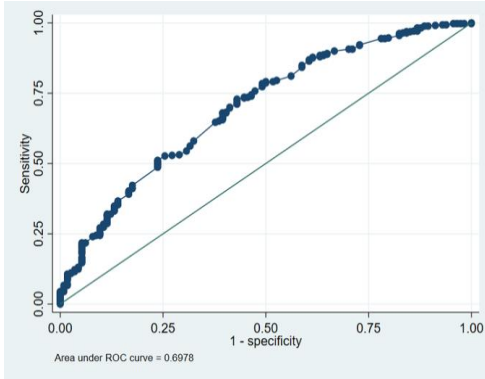
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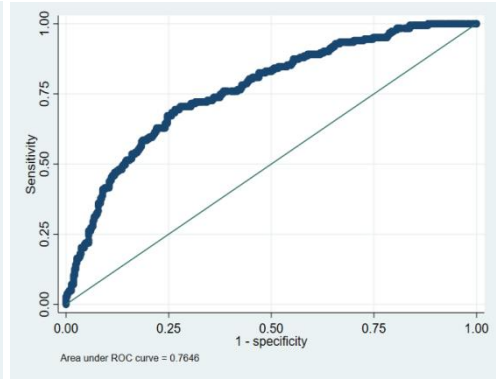
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## ANNEX 1: MODEL ADEQUACY

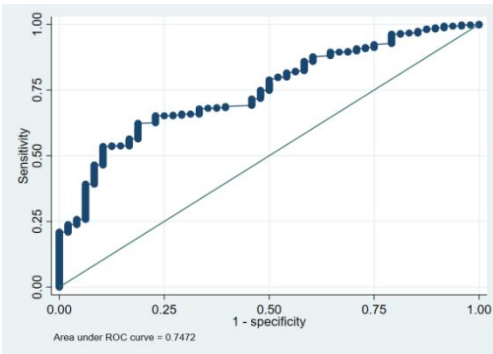
Outcome 1: Change in Profit



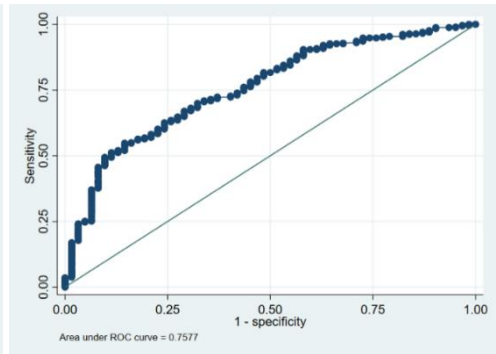
Outcome 2: Change in product/services



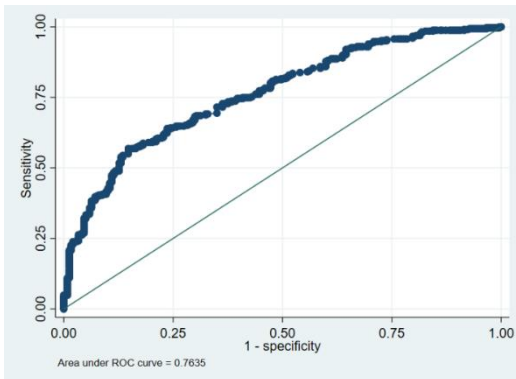
Outcome 3: Change in Capital



Outcome 4: Change in Asset



Outcome 5: Change in Human resources



## ANNEX 2: SCHEMA SHOWING QUALITATIVE DATA SOURCES AND METHODS OF DATA COLLECTION

Focus	Method of analyses	Expected important inquires	Epochs and policies to be reviewed
Policy Formulation	Desk review FGD KII	Did national and sectoral plan adequately consider women SMEs sustainability? Did adequate incentives have been considered in the national and sectoral plans to promote SMEs owned by females? Is there any incentive given to SMEs to encourage their sustainability? Is there any policy that links SMEs with market? Is there any separate institutional arrangement that provide technical support to SMEs?	ADLI Participatory Demonstration and Training Extension System (PADETES). Sustainable Development and Poverty Reduction Program (SDPRP) (2002/03-2004/05), A Plan for Accelerated and Sustained Development to End Poverty 2005/06–2009/10) GTPI GTPII TYDP
SMEs related areas	Desk review FGD KII	What support is need from the government? Which factors affect the performance of your firm? Do you have a plan to leave your business? Do you feel that you are/were operating at a very high risky business environment? Have you seen that the support of the government is improving along years?	

## ANNEX 3: MULTICOLLEANIARITY

### Model 1: Change in Profit

Variable	VIF	1/VIF
techuse	1.13	0.886082
B5	1.08	0.929286
A4	1.07	0.930444
initcap	1.05	0.952209
E4	1.03	0.969543
B15	1.02	0.977746
Mean VIF	1.06	

### Model 2: Change in number of products/services

Variable	VIF	1/VIF
govsupp	1.24	0.805188
B5	1.21	0.828567
B15	1.10	0.910426
A5	1.07	0.938157
A4	1.06	0.947532
B8cat	1.04	0.966069
B1	1.03	0.970494
exper	1.02	0.979900
entSector	1.02	0.981222
Mean VIF	1.09	

### Model 3: Change in human resources

Variable	VIF	1/VIF
techuse	1.21	0.829377
govsupp	1.16	0.861898
A4	1.06	0.943305
B7cat	1.06	0.943501
E4	1.06	0.946796
entSector	1.05	0.951149
entAge	1.05	0.951459
B8cat	1.03	0.967913
Mean VIF	1.08	

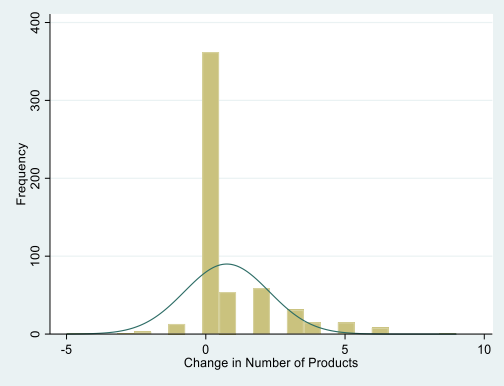
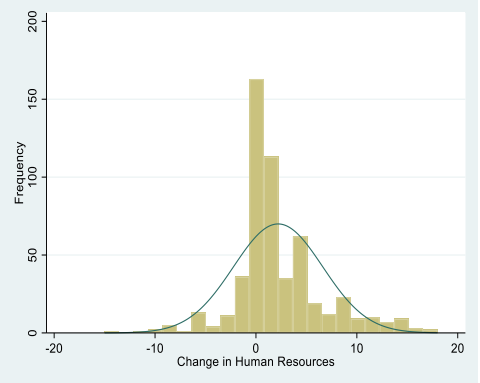
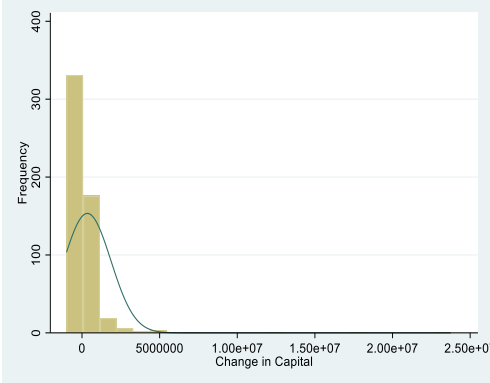
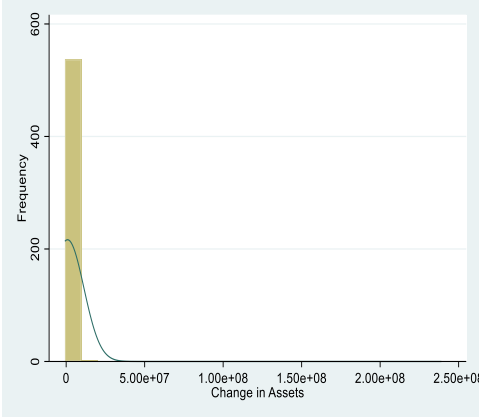
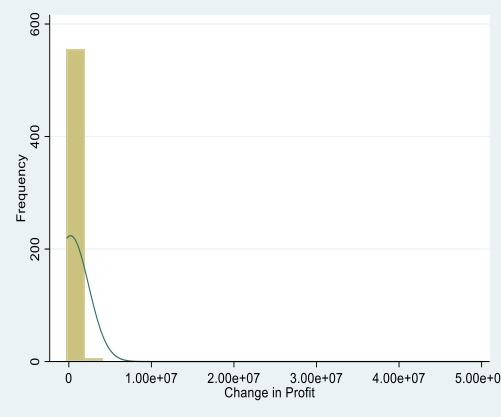
### Model 4: Change in asset

Variable	VIF	1/VIF
B5	1.28	0.780709
govsupp	1.22	0.818930
nfoundcat	1.12	0.893838
A5	1.06	0.947546
A4	1.05	0.950322
ngosupp	1.05	0.950403
entAge	1.05	0.953673
B7cat	1.05	0.955776
A1	1.03	0.974491
Mean VIF	1.10	

### Model 5: Change in capital

Variable	VIF	1/VIF
B5	1.15	0.869486
nfoundcat	1.09	0.917061
B8cat	1.05	0.950794
B7cat	1.04	0.962489
ngosupp	1.04	0.963077
entAge	1.03	0.971681
B15	1.01	0.986318
entSector	1.01	0.987382
Mean VIF	1.05	

# ANNEX 4: DISTRIBUTION OF THE OUTCOME VARIABLES



## ANNEX 5: BIVARIATE TABLES

**Table 7A: Results of the Chi-square analysis for association between change in profit and selected variables, n=564.**

Variables and categories	Change in Profit				$\chi^2$	P-value
	No (N=114)	Yes (N=450)	Total	Percent with profit		
City					7.82	0.098
Addis Ababa	36	177	213	83%		
Hawassa	26	75	101	74%		
Jimma	21	81	102	79%		
Bahir Dar	25	71	96	74%		
Dire Dawa	6	46	52	88%		
Sex of manager					8.179	0.004
Male	4	58	62	94%		
Female	110	392	502	78%		
Years of experience in the enterprise					6.07	0.048
<5 Years	38	104	142	73%		
5-10 Years	72	315	387	81%		
>10 Years	4	31	35	89%		
Manager's level of education					5.106	0.403
No formal education	2	13	15	87%		
Primary and below (up to grade 8)	32	90	122	74%		
Grade 9 to 12	44	194	238	82%		
Vocational certificate	3	22	25	88%		
College diploma or training	21	75	96	78%		
Degree or above	12	56	68	82%		
Position in the enterprise						
Founder manager	85	308	393	78%		
Founder vice manager	25	122	147	83%		
Manager	4	20	24	83%		
Age of enterprise					2.694	0.26

Variables and categories	Change in Profit				$\chi^2$	P-value
	No (N=114)	Yes (N=450)	Total	Percent with profit		
City					7.82	0.098
Addis Ababa	36	177	213	83%		
Hawassa	26	75	101	74%		
Jimma	21	81	102	79%		
Bahir Dar	25	71	96	74%		
Dire Dawa	6	46	52	88%		
3-5 Years	72	249	321	78%		
6-10 Years	38	174	212	82%		
>10 Years	4	27	31	87%		
Type of SMEs:					8.407	0.015
Small	71	226	297	76%		
Medium	15	114	129	88%		
Micro	28	110	138	80%		
Sector of the SME					9.59	0.213
Manufacturing- food	24	90	114	79%		
Manufacturing - leather	6	19	25	76%		
Manufacturing -Textile and garment design	21	89	110	81%		
Manufacturing- Traditional garment and ornaments	5	34	39	87%		
Manufacturing- Wood works and bamboo	14	68	82	83%		
Manufacturing- Metal woks and engineering	2	27	29	93%		
Manufacturing- other	15	33	48	69%		
Tourism and Hospitality	27	90	117	77%		
Total number of founders					0.035	0.983
<5	70	273	343	80%		
'5- 10	39	158	197	80%		
>10	5	19	24	79%		

Variables and categories	Change in Profit				$\chi^2$	P-value
	No (N=114)	Yes (N=450)	Total	Percent with profit		
City					7.82	0.098
Addis Ababa	36	177	213	83%		
Hawassa	26	75	101	74%		
Jimma	21	81	102	79%		
Bahir Dar	25	71	96	74%		
Dire Dawa	6	46	52	88%		
The type of work premise of the enterprise					4.838	0.184
Self/family owned	8	35	43	81%		
Rented from private owner	13	45	58	78%		
Rented from government shades	91	338	429	79%		
Free or subsidized rent from NGO	2	32	34	94%		
Engaged in similar type work before starting own business					0.104	0.748
Yes	48	197	245	80%		
No	66	253	319	79%		
Having some training in skills related to the business					9.397	0.052
None	18	109	127	86%		
Very few (2 out of 10)	27	125	152	82%		
Some (3-4 out of 10)	28	85	113	75%		
About half (5-6 out of 10)	11	54	65	83%		
More than half (7+ out of 10)	30	77	107	72%		
No. of hours the organization functions					0.031	0.86
<=8 Hours	54	209	263	79%		
>8 Hours	60	241	301	80%		
No. of days per week the SME functions					0.001	0.972
<=5 days	8	32	40	80%		
>5 days	106	418	524	80%		

Source: Survey, August-September 2022



**Table 7B: Results of the Chi-square analysis for association between change in the number of products/ services and selected variables, n=564.**

Variables and categories	Change in Number of Products				$\chi^2$	P-value
	No (N=381)	Yes (N=183)	Total	Percent of yes		
Name of city					6.371	0.173
Addis Ababa	140	73	213	34%		
Hawassa	60	41	101	41%		
Jimma	75	27	102	26%		
Bahir Dar	70	26	96	27%		
Dire Dawa	36	16	52	31%		
Sex of respondent					1.401	0.237
Male	46	16	62	26%		
Female	335	167	502	33%		
Years of experience in the SME					10.572	0.005
<5 Years	111	31	142	22%		
5-10 Years	250	137	387	35%		
>10 Years	20	15	35	43%		
Manager's level of education					11.129	0.049
No formal education	9	6	15	40%		
Primary and below (up to grade 8)	93	29	122	24%		
Grade 9 to 12	165	73	238	31%		
Vocational certificate	16	9	25	36%		
College diploma or training	61	35	96	36%		
Degree or above	37	31	68	46%		
Position in the enterprise					0.158	0.924
Founder manager	264	129	393	33%		
Founder vice manager	100	47	147	32%		
Manager	17	7	24	29%		
Age of enterprise					1.55	0.461
3-5 Years	221	100	321	31%		

Variables and categories	Change in Number of Products				$\chi^2$	P-value
	No (N=381)	Yes (N=183)	Total	Percent of yes		
6-10 Years	142	70	212	33%		
>10 Years	18	13	31	42%		
Type of SMEs:					6.801	0.033
Small	201	96	297	32%		
Medium	77	52	129	40%		
Micro	103	35	138	25%		
Sector of the SME					18.879	0.009
Manufacturing- food	82	32	114	28%		
Manufacturing - leather	13	12	25	48%		
Manufacturing -Textile and garment design	81	29	110	26%		
Manufacturing- Traditional garment and ornaments	21	18	39	46%		
Manufacturing- Wood works and bamboo	51	31	82	38%		
Manufacturing- Metal woks and engineering	13	16	29	55%		
Manufacturing- other	35	13	48	27%		
Tourism and Hospitality	85	32	117	27%		
Total number of founders					0.979	0.613
<5	237	106	343	31%		
10-May	128	69	197	35%		
>10	16	8	24	33%		
The type of work premise of the enterprise					12.448	0.006
Self/family owned	29	14	43	33%		
Rented from private owner	41	17	58	29%		
Rented from government shades	279	150	429	35%		
Free or subsidized rent from NGO	32	2	34	6%		
Engaged in similar work before starting own business					21.417	0

Variables and categories	Change in Number of Products				$\chi^2$	P-value
	No (N=381)	Yes (N=183)	Total	Percent of yes		
Yes	140	105	245	43%		
No	241	78	319	24%		
Having some training in skills related to the business					48.88	0
None	110	17	127	13%		
Very few (2 out of 10)	75	77	152	51%		
Some (3-4 out of 10)	78	35	113	31%		
About half (5-6 out of 10)	51	14	65	22%		
More than half (7+ out of 10)	67	40	107	37%		
No. of hours the organization functions					0.437	0.509
<=8 Hours	174	89	263	34%		
>8 Hours	207	94	301	31%		
No. of days per week the SME functions					5.979	0.014
<=5 days	34	6	40	15%		
>5 days	347	177	524	34%		

Source: Survey, August-September 2022

**Table 7C: Results of the Chi-square analysis for association between change in human resources and selected variables, n=564.**

Variables and categories	Change in Human Resources				$\chi^2$	P-value
	No (N=237)	Yes (N=327)	Total	Percent of yes		
Name of city					5.491	0.241
Addis Ababa	92	121	213	57%		
Hawassa	40	61	101	60%		
Jimma	50	52	102	51%		
Bahir Dar	32	64	96	67%		
Dire Dawa	23	29	52	56%		
Sex of respondent					19.168	0
Male	10	52	62	84%		
Female	227	275	502	55%		
Years of experience in the SME					2.987	0.225
<5 Years	55	87	142	61%		
5-10 Years	171	216	387	56%		
>10 Years	11	24	35	69%		
Manager's level of education					10.767	0.056
No formal education	8	7	15	47%		
Primary and below (up to grade 8)	59	63	122	52%		
Grade 9 to 12	107	131	238	55%		
Vocational certificate	9	16	25	64%		
College diploma or training	35	61	96	64%		
Degree or above	19	49	68	72%		
Position in the enterprise					1.962	0.375
Founder manager	170	223	393	57%		
Founder vice manager	60	87	147	59%		
Manager	7	17	24	71%		
Age of enterprise					6.454	0.4
3-5 Years	132	189	321	59%		
6-10 Years	98	114	212	54%		
>10 Years	7	24	31	77%		
Type of SMEs:					29.768	0
Small	130	167	297	56%		

Variables and categories	Change in Human Resources				$\chi^2$	P-value
	No (N=237)	Yes (N=327)	Total	Percent of yes		
Medium	30	99	129	77%	46.971	0
Micro	77	61	138	44%		
Sector of the SME						
Manufacturing- food	48	66	114	58%		
Manufacturing - leather	7	18	25	72%		
Manufacturing -Textile and garment design	60	50	110	45%		
Manufacturing- Traditional garment and ornaments	26	13	39	33%		
Manufacturing- Wood works and bamboo	16	66	82	80%		
Manufacturing- Metal woks and engineering	6	23	29	79%		
Manufacturing- other	15	33	48	69%		
Tourism and Hospitality	59	58	117	50%		
Total number of founders					3.73	0.155
<5	154	189	343	55%		
10-May	72	125	197	63%		
>10	11	13	24	54%	3.596	0.309
The type of work premise of the enterprise						
Self/family owned	17	26	43	60%		
Rented from private owner	21	37	58	64%		
Rented from government shades	180	249	429	58%		
Free or subsidized rent from NGO	19	15	34	44%		
Engaged in similar work before starting own business					1.432	0.232
Yes	96	149	245	61%		
No	141	178	319	56%		
Having some training in skills related to the business					11.673	0.02
None	62	65	127	51%		
Very few (2 out of 10)	73	79	152	52%		
Some (3-4 out of 10)	39	74	113	65%		
About half (5-6 out of 10)	19	46	65	71%		
More than half (7+ out of 10)	44	63	107	59%		

Variables and categories	Change in Human Resources				$\chi^2$	P-value
	No (N=237)	Yes (N=327)	Total	Percent of yes		
No. of hours the organization functions					7.011	0.008
<=8 Hours	126	137	263	52%		
>8 Hours	111	190	301	63%		
No. of days per week the SME functions					9.331	0.002
<=5 days	26	14	40	35%		
>5 days	211	313	524	60%		

Source: Survey, August-September 2022

**Table 7D: Results of the Chi-square analysis for association between change in assets and selected variables, n=564.**

Variables and categories	Change in Assets				$\chi^2$	P-value
	No (N=48)	Yes (N=516)	Total	Percent of yes		
Name of city					20.953	0
Addis Ababa	13	200	213	94%		
Hawassa	11	90	101	89%		
Jimma	19	83	102	81%		
Bahir Dar	4	92	96	96%		
Dire Dawa	1	51	52	98%		
Sex of respondent					2.499	0.114
Male	2	60	62	97%		
Female	46	456	502	91%		
Years of experience in the SME					2.947	0.229
<5 Years	16	126	142	89%		
5-10 Years	31	356	387	92%		
>10 Years	1	34	35	97%		
Manager's level of education					6.699	0.244
No formal education	0	15	15	100%		
Primary and below (up to grade 8)	12	110	122	90%		
Grade 9 to 12	22	216	238	91%		
Vocational certificate	0	25	25	100%		
College diploma or training	11	85	96	89%		
Degree or above	3	65	68	96%		
Position in the enterprise					4.638	0.098
Founder manager	40	353	393	90%		
Founder vice manager	7	140	147	95%		
Manager	1	23	24	96%		
Age of enterprise					3.393	0.183
3-5 Years	33	288	321	90%		
6-10 Years	14	198	212	93%		
>10 Years	1	30	31	97%		
Type of enterprise					3.439	0.179
Small	30	267	297	90%		
Medium	6	123	129	95%		

Variables and categories	Change in Assets				$\chi^2$	P-value		
	No (N=48)	Yes (N=516)	Total	Percent of yes				
Micro	12	126	138	91%				
Sector of the SME								
Manufacturing- food	12	102	114	89%	3.291	0.857		
Manufacturing - leather	1	24	25	96%				
Manufacturing -Textile and garment design	7	103	110	94%				
Manufacturing- Traditional garment and ornaments	4	35	39	90%				
Manufacturing- Wood works and bamboo	8	74	82	90%				
Manufacturing- Metal woks and engineering	1	28	29	97%				
Manufacturing- other	4	44	48	92%				
Tourism and Hospitality	11	106	117	91%				
Total number of founders								
<5	30	313	343	91%			2.356	0.308
10-May	18	179	197	91%				
>10	0	24	24	100%				
The type of work premise of the enterprise								
Self/family owned	5	38	43	88%	3.286	0.35		
Rented from private owner	8	50	58	86%				
Rented from government shades	33	396	429	92%				
Free or subsidized rent from NGO	2	32	34	94%				
Engaged in similar work before you started your own business								
Yes	25	220	245	90%	1.595	0.207		
No	23	296	319	93%				
Employees having some training in skills related to the business								
None	10	117	127	92%	8.896	0.064		
Very few (2 out of 10)	20	132	152	87%				
Some (3-4 out of 10)	11	102	113	90%				
About half (5-6 out of 10)	3	62	65	95%				
More than half (7+ out of 10)	4	103	107	96%				
No. of hours the organization functions								
<=8 Hours	28	235	263	89%	2.887	0.089		



Variables and categories	Change in Assets				$\chi^2$	P-value
	No (N=48)	Yes (N=516)	Total	Percent of yes		
>8 Hours	20	281	301	93%		
No. of days per week the SME functions						
<=5 days	5	35	40	88%	0.88	0.348
>5 days	43	481	524	92%		

Source: Survey, August-September 2022

**Table 7E: Results of the Chi-square analysis for association between change in capital and selected variables, n=564.**

Variables and categories	Change in Capital				$\chi^2$	P-value
	No (N=62)	Yes (N=502)	Total	Percent of yes		
Name of city					8.861	0.064
Addis Ababa	20	193	213	91%		
Hawassa	15	86	101	85%		
Jimma	17	85	102	83%		
Bahir Dar	8	88	96	92%		
Dire Dawa	2	50	52	96%		
Sex of respondent					1.468	0.226
Male	4	58	62	94%		
Female	58	444	502	88%		
Years of experience in the SME					1.928	0.381
<5 Years	20	122	142	86%		
5-10 Years	39	348	387	90%		
>10 Years	3	32	35	91%		
Manager's level of education					0.982	0.964
No formal education	2	13	15	87%		
Primary and below (up to grade 8)	15	107	122	88%		
Grade 9 to 12	24	214	238	90%		
Vocational certificate	2	23	25	92%		
College diploma or training	12	84	96	88%		
Degree or above	7	61	68	90%		
Position in the enterprise					2.505	0.286
Founder manager	48	345	393	88%		
Founder vice manager	11	136	147	93%		
Manager	3	21	24	88%		
Age of enterprise					6.982	0.03
3-5 Years	45	276	321	86%		

Variables and categories	Change in Capital				$\chi^2$	P-value
	No (N=62)	Yes (N=502)	Total	Percent of yes		
6-10 Years	15	197	212	93%		
>10 Years	2	29	31	94%		
Type of SMEs:					3.122	0.21
Small	39	258	297	87%		
Medium	10	119	129	92%		
Micro	13	125	138	91%	12.97 2	0.073
Sector of the SME						
Manufacturing- food	20	94	114	82%		
Manufacturing - leather	1	24	25	96%		
Manufacturing -Textile and garment design	15	95	110	86%		
Manufacturing- Traditional garment and ornaments	2	37	39	95%		
Manufacturing- Wood works and bamboo	4	78	82	95%		
Manufacturing- Metal woks and engineering	2	27	29	93%		
Manufacturing- other	7	41	48	85%		
Tourism and Hospitality	11	106	117	91%		
Total number of founders					1.562	0.458
<5	34	309	343	90%		
10-May	26	171	197	87%		
>10	2	22	24	92%	9.096	0.028
The type of work premise of the enterprise						
Self/family owned	3	40	43	93%		
Rented from private owner	13	45	58	78%		
Rented from government shades	42	387	429	90%		
Free or subsidized rent from NGO	4	30	34	88%		
Engaged in similar work before starting own business					0.634	0.426
Yes	24	221	245	90%		

Variables and categories	Change in Capital				$\chi^2$	P-value
	No (N=62)	Yes (N=502)	Total	Percent of yes		
No	38	281	319	88%		
Having some training in skills related to the business					5.685	0.224
None	12	115	127	91%		
Very few (2 out of 10)	22	130	152	86%		
Some (3-4 out of 10)	8	105	113	93%		
About half (5-6 out of 10)	5	60	65	92%		
More than half (7+ out of 10)	15	92	107	86%		
No. of hours the organization functions					0.695	0.405
<=8 Hours	32	231	263	88%		
>8 Hours	30	271	301	90%		
No. of days per week the SME functions					1.58	0.209
<=5 days	2	38	40	95%		
>5 days	60	464	524	89%		

Source: Survey, August-September 2022