



The role of micro- and small-scale enterprises in enhancing sustainable community livelihood: Tigray, Ethiopia

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Received: 24 February 2020 / Accepted: 2 April 2022 / Published online: 24 May 2022
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Abstract

Micro- and small-scale enterprises (MSEs) have emerged as one of the most important tools for addressing economic and social issues and achieving development goals. In both developed and developing economies, MSEs have been acknowledged as critical components of national development. This study aimed to assess the contributions of MSEs toward sustainable community livelihood in Emba Alaje, Wereda, Ethiopia. The results revealed that MSEs contributed to economic growth, employment formation, and income generation for the local community. In addition, the study indicated that the MSEs were significantly affected by different determinant factors such as infrastructures, raw material, working premises, and human capital. The study clearly showed that there was a gender gap over participation in different MSE sectors. In addition, many sectors which can employ more people are still managed by men. This shows that the bodies involved, such as the MSE Development Offices, Bureau of Cooperatives, and Bureau of Works and Social Affairs, should join their hands and allow women to enter traditionally male-dominated sectors such as construction, manufacturing, and urban farming. Above all, greater efforts should be made to consider both female- and male-owned businesses.

Keywords Sustainable development · Socioeconomic challenges · National development · Human capital · Chi-square

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1 Introduction

Globally, micro- and small-scale enterprises (MSEs) are known for their important contribution to economic growth (Osotimehin et al., 2012) and job creation (Matthew et al., 2020). MSEs have become one of the most important tools for dealing with economic and social issues and achieving development goals in both developed and developing nations (Bai et al., 2021; Miah et al., 2015; OECD, 2017a). The OECD (2017b) statistics showed that MSEs make up more than 60% of the gross domestic product in developing economies and more than 70% of the total employment. The MSEs sector is seen as a key catalyst for jobs, unemployment, and social development as a whole since the lion share of rapidly increasing workforce worldwide (Awartani & Millis, 2018) ranges from 48 to 51% in Latin America, 65% in Asia, and 72% in the Sub-Saharan African countries (ILO, 2002). In most economies, the MSEs make up more than 90% of the total income (Razak et al., 2018; Tambunan, 2020). They are lent the highest employment growth rates (Geremewe, 2018), and they represent a large share of industrial production and exports (Abebe & Gebremariam, 2021; Fava, 2021; Taiwo et al., 2012). Since agriculture is the second largest sector of employment in Ethiopia, MSEs as major part of the agricultural industry are of great importance in this country. According to Fufa (2015), there were 974,676 micro- and 31,863 small businesses in Ethiopia representing 99.40% and 0.46% of industrial establishments, respectively. According to a national study performed by the Central Statistical Agency, more than 1.3 million people work in MSEs (CSA, 2007). However, many MSEs could not expand and remained in survival forms that could not provide work (Gebremeskel, 2018). Around 69% of 1000 MSEs were known as survival forms (Tefera et al., 2013).

Since 2001, significant efforts have been made in Tigray to eliminate poverty and unemployment in a broader context through the growth of micro- and small businesses. As a result, the number of companies rose from 49,392 in 2003 to 106,745 in 2009. The majority of MESs (52%), which existed in Tigray, were owned by females; 75,225% of them in cities with a service in the same area, and the remaining 24,727 were located in growing cities with no single service center identified. It was possible to create permanent and temporary employment opportunities for 193,286 residents by promoting and expanding micro- and small businesses. MSEs' key constraints included finance credit issues; lack of workplace; business challenges; lack of managerial skills, fee, and rent money; etc. (Admasu, 2012; Hadis & Ali, 2018).

Most studies in academic and non-academic institutions (e.g., Abebe & Gemed, 2020; Agyapong, 2010; Jibir, 2015; Meressa, 2020) focus on factors that hinder MSEs growth and program outcomes in aggregate forms. Empirical research on the function of MSEs in community development have not evaluated the role of MSEs in the community. For example, Abebe and Gemed (2020) searched at poor government regulation, infrastructure investment, management, financial, legal, and marketing challenges as factors that affect the growth of MSEs in Asella City, Ethiopia, such as lack of clear job descriptions among members, high collateral requirements from financial institutions, lack of training, and poor linkage of MSEs to the market. As a result, the concerned office should assist MSEs in overcoming obstacles to their growth. To assist SMEs expand, MSEs should be connected to the market, and members should create a collaborative culture (Gupta & Tripathi, 2020).

In addition, most of the previous empirical studies typically tended to focus on spatial distribution, opportunity, and growth of MSEs. To highlight the global novelty, this study

seeks to examine the gap in the contribution of MSEs to community livelihood through the role of financial capitals in income generation, economic growth, and sustainable community development. Moreover, limited studies have been made to assess MSEs' contributions toward sustainable livelihoods in Emba Alaje Wereda.

1.1 Literature review

1.1.1 Micro- and small-scale enterprises

In many industrialized countries, the concept of MSEs varies from that of other developing nations. Throughout developing countries, micro-enterprises can be categorized as small- or medium-sized. In fact, MSEs generate the great majority of businesses and have contributed significantly to job creation and economic growth in Europe, Japan, and the USA (Habtewold, 2019; Okamuro et al., 2018). Similarly, many Sub-Saharan African countries registered high levels of MSEs in the economy (Newa, 2010; Abebe, 2021).

A vast range of activities characterize the MSE sector, which can provide livelihood prospects for a substantial portion of the population. This suggests that the sector can quickly alleviate unemployment and poverty. To attain a modest level of living, the government and other stakeholders must take active action and help to eliminate unemployment and boost the job and self-employment markets (Agenssa & Premanandam, 2021; Gomez, 2008). As a result, a concept is needed to categorize the sector so that all necessary support and facilities can be channeled into this diverse sector (Geremewe, 2018).

The strategy of MSE development in Ethiopia categorizes businesses according to the capital and number of employees (Zemenu & Mohammed, 2014). An enterprise that employs five people, including its owner, and whose total assets are less than 100,000 birr in the industry (mining, construction, and manufacturing) sector is called a micro-enterprise. Micro-enterprises functioning in the service sector (retailer, transport, hotel and tourist, Information Communication Technology (ICT) and maintenance service) have a staff of five people, including the owner, and a total asset worth of less than 50,000 birr (Tsegaye, 2019). A small business in the industrial sector is identified as the one that employs 6–30 people and has a paid-up capital of at least 100,000 birr but a total assets of less than 1.5 million birr. Small enterprises in the service sector are defined as those employing 6–30 employees or having a paid-up capital of 50,000 birr and a total assets of less than 500,000 birr (Table 1).

1.1.2 MSEs for sustainable community development

Phillips and Pittman (2009) defined community development as a determined endeavor to build assets that strengthen citizens' potential to improve their quality of life. Several types

Table 1 Definition of MSE applicable in Ethiopia (Fufa, 2015). *Source:* (Fufa, 2015)

Enterprise	Sector	Employee	Capital
Micro-enterprise	Industry	<5	<ETB 100,000
	Service	<5	<ETB 50,000
Small enterprise	Industry	6–30	<ETB 1,500,000
	Service	6–30	<ETB 500,000

of community capital could be considered as such assets (i.e., physical, environmental capital, human, and financial). Community development can be characterized as the process of collective action creation and enhancement. In fact, this is the result in various fields such as physical, environmental, cultural, financial, political, economic, and other areas for the development of a community. In general, community development refers to the ability of the people to coordinate and mobilize resources for the achievement of consensus-built goals (Eshetu & Mammo, 2009; Kazungu et al., 2014; Westlund & Nilsson, 2005). In both developed and developing economies, MSEs have been recognized as indispensable components of national development. They have also been recognized internationally as economic growth and development instruments (Oppong et al., 2014; Osotimehin et al., 2012). Overall, MSEs can only contribute to long-term community development if and only if they are integrated into a holistic approach to community development that considers social, economic, and environmental factors. As a result, MSEs in both developed and developing countries are frequently regarded as a springboard for long-term growth (Oppong et al., 2014; Osotimehin et al., 2012). According to recent research (e.g., Senthilkumar, 2021; Tsegaye, 2019), Ethiopia's MSE sector is the second greatest source of employment after agriculture. As a method for poverty reduction and job creation, MSEs are especially important for women (Wasihun & Paul, 2010; Gichuki et al., 2015). MSEs have demonstrated their tremendous effect on rapid economic growth in successful developing countries due to their size, location, capital investment, and capacity to generate more employment (Mamo et al., 2021). The MSE sector has also aided economic transition by providing a large number of people with adequate quality and reasonably priced goods and services, especially in rural areas, and by using the skills and talents of a large number of people without requiring advanced training, large sums of capital, or advanced technologies. In 1997, Ethiopia published its first national MSMEs Development and Promotion Strategy, which was followed by the formulation of a Women Policy in 1998, the formation of the Federal MSMEs Development Agency, The Ethiopia's Industrial Development Strategy was published in 2003, that all intended to develop MSMEs development and empower women in particular by making it easier to find resources and participate in economic activities (Gebremariam, 2017; Wasihun & Paul, 2010).

Through a combination of these measures, the small business sector as an influential force can provide the ideal environment for entrepreneurs to efficiently exercise their talents, achieve their goals, generate employment and more equitable income distribution, activate competition, exploit niche markets, increase productivity, and stimulate economic development. Wasihun and Paul (2010) demonstrated that the importance of MSMEs in generating employment and income in a community is generally acknowledged, particularly among women, and that they have become a key potential for policymakers and donors seeking to boost growth while also alleviating poverty (Fig. 1).

1.1.3 Factors affecting the performance of MSEs

Despite the fact that MSEs have made significant contributions to community development by increasing community capital and allowing communities to unleash their resources, MSEs face a number of challenges that prevent them from fully operating and bringing about change (Matthew et al., 2020; Osotimehin et al., 2012). Despite the fact that female entrepreneurs face a variety of problems, they are unable to solve them on their own. Another big challenge is the lack of a strong support system that can help MSEs solve their problems. Furthermore, it was commonly regarded as a sign of backwardness for a long

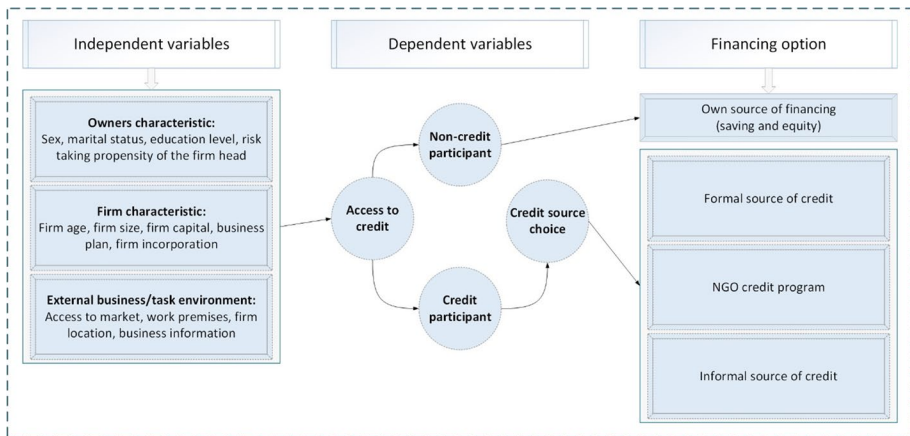


Fig. 1 Workflow of the study. *Source:* study findings

time in the history of MSEs' growth and expansion. Lack of another option in all segments of society, as well as the perception of MSEs as reflections of poverty and a backward attitude toward rent seeking, hampered MSEs' development (FDRE, 2017). These constraints encompass limited markets, lack of access to affordable finance, lack of input storage, lack of transport facilities, and lack of adequate resources or mechanisms (poor technology). Additionally, MSEs face hazardous work environments.

Wubet and Mmopelwa (2020) projected that MSEs employed between 17 and 27% population, approximately double the employment of large-scale enterprises and the public sector, based on a review of national surveys (conducted in various regions of Africa). According to the (2017a), MSEs employ a third or more of Ethiopia's labor force. In Tigray, there are a total of 2548 MSEs, employing 26,000 people according to OECD statistics from 2017. According to Wubet and Mmopelwa (2020), the MSEs sector employs over 2.3 million people and accounts for nearly 14% of Ethiopia's Gross Domestic Product (GDP).

As a result, the function of MSEs in improving the sustainable livelihoods of rural populations in Ethiopia's Tigray region has been explored in this study. However, flourishing MSEs contribute to the national economy by reducing poverty through income generation, women empowerment, and job creation. It also contributes to GDP, pioneers of industrialization, and the main pillars of economic and structural transformation by promoting savings and capital accumulation (Gebremeskel, 2018; Meressa, 2020). In addition, Ethiopia's MSME sector has a variety of constraints that limit its rapid growth and development, lowering the value of its potential contribution to the economy and impeding women's economic empowerment (Mamo et al., 2021).

2 Research design and methods

2.1 Study area

Geographically, the research was conducted in Emba Alaje which is located between 12° 59' 00" N and 13°00' 00" N, and 39° 20' 00" E and 39° 33' 00" E. The area borders Hintalo Wejerat in North and Northeast, Endamehoni in South, Raya Azebo in East, Saharti

Samre in Northwest, and Amhara region in West. The administrative center of the Wereda Adishehu town is located approximately 697 km North of Addis Ababa, 85 km South of Mekelle, and 39 km North of Maichew town (Fig. 2).

3 Research design

The study applied a mixed research design composed of both quantitative and qualitative research approaches. Quantitative and qualitative research approaches can be used symbolically to avoid the limitations of using a single approach, according to Abebe (2012), because quantitative and qualitative research methods are insufficient to address complex social and cultural phenomena when treated separately. Thus, the qualitative research approach was employed in order to analyze the statistics and test the theory by specifying a narrow hypothesis and collecting and analyzing the data to support or refute the hypothesis. On the other hand, the study employed the qualitative research approach to collect and analyze the data which were obtained through in-depth interviews with key informants. It also focused on group discussion participants regarding the perception of the issues or factors related to the sustainability of the rural portable water supply system.

In this study, concurrent mixed research designs were employed because both quantitative and qualitative data were collected and analyzed at the same time. According to Zemenu (2012), concurrent triangulation designs collect and analyze quantitative and qualitative data at the same time. In order to ensure the validity of the qualitative data collected from the field, a method of triangulation that involves focus group discussions, key

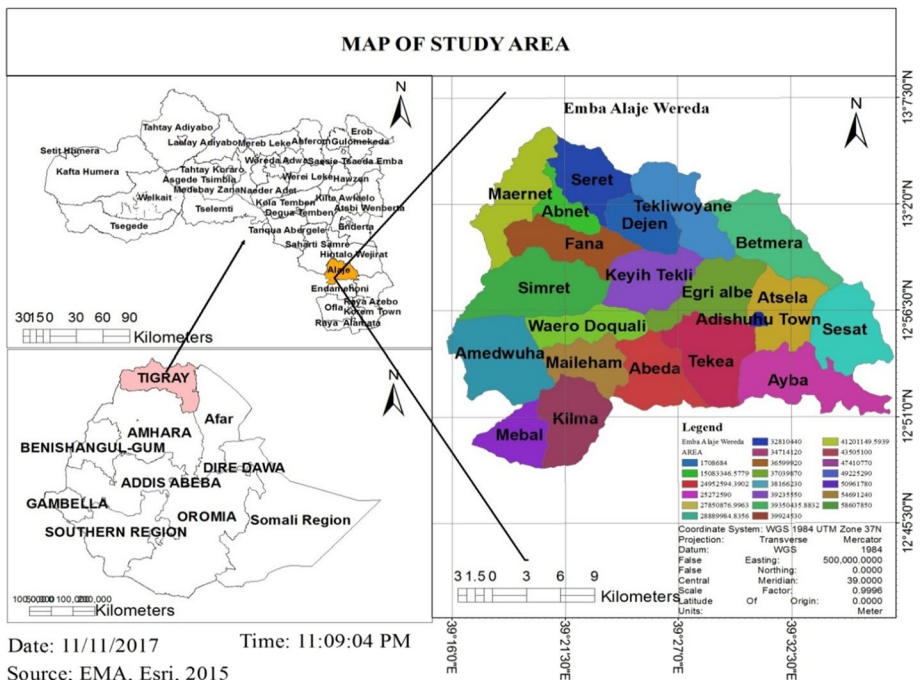


Fig. 2 Map of the study area

informant interviews, and observations has been administered consistently. The data for this study were collected from both primary and secondary data sources, which are discussed in the following subsections.

3.1 Data sources and data collection techniques

3.1.1 Primary data sources

The primary data sources included household heads, key informants, focus group discussions, and direct observation (non-participant observation). Data collection instruments included survey questionnaires, key informants' interviews, group discussions, and direct observation (non-participant observation).

Household survey questionnaire The primary data from the household survey were collected using questionnaires. The questionnaires were composed of close and open-ended questions and covered various issues to collect primary data concerning all relevant variables such as socioeconomic characteristics of the respondents and contributions and challenges of MSEs. The questionnaires were translated into the local language 'Tigrigna' for the convenience of data collection during the household survey. Moreover, during the data collection process, continuous supervisions were conducted by the researcher in order to maintain the quality of data.

Key informants' interview (KII) The key informants' interview was administered through a semi-structured schedule and covered various issues. The interviews were conducted with ten selected individuals who were believed to have some information about the area and the subject matter, kebele administration officials in the selected kebelles, and Wereda MSE office experts.

Focus group discussion (FGD) Four focus group discussions were organized with kebele administrative officials and MSE experts. For each group discussion, five members participated in the four selected kebelles, i.e., Adishihu, Bora, Betmara, and Della. The checklist was composed of semi-structured and open-ended questions and covered various issues such as the contribution and challenges of MSE.

Direct observation The primary data from the Wereda were collected using field observation. In this case, the researcher remains a passive observer and does not involve in any activities of the group. In addition to the above data gathering instruments, the researcher conducted an observation of the existing MSEs, i.e., the functional sustainability and the overall situation of the MSE.

3.1.2 Secondary data sources

This study used secondary data from different published and unpublished sources such as books, journals, research reports, magazines, and official and/or abstract statistics and reports. The secondary data consisted of the contribution of MSE that were obtained from the Wereda MSE office.

3.2 Sample size and sampling procedure

Data were collected by employing systematic random sampling. There are 2548 MSEs operators (CSA, 2012) in the Wereda, out of which the majority were households and live together. Overall, 346 were selected by employing a systematic random sampling

method in a distance of eighth (8th) person to save time and increase the representativeness of the study. In order to determine the sample size for this study, the formula suggested by Yamane Taro (1967) was used. Accordingly, the sample size which is based on a 95% confidence level and $P=0.05$ is determined as follows:

$$n = \frac{N}{1 + N(e)^2} = \frac{2548}{1 + 2548(0.5)^2} = 346$$

where n is the required sample size, N is the number of households (i.e., 2548), and e is the desired precision (i.e., estimated error=5%). The sample sizes were taken from each sample sector proportional to their total number of operators. The total households selected for this study were 346 operators residing in five selected sectors. To represent the MSE population by the above sample size, a two-stage sampling procedure was applied. First, the overall sample size (346) was divided among MSE sectors proportionally. Second, once the sample size share of each sector was determined, systematic random sampling technique was applied to extract the actual data from the respondents (Table 2).

As stated above, the operators/respondents were first selected using stratified random sampling followed by the systematic random sampling method. Since the general setting of the sectors is heterogeneous, the sample size is thought to be representative.

3.3 Method of data analysis

The study used techniques of qualitative and quantitative data analysis. The data collected by means of the survey were coded, edited, and entered into the SPSS (Statistical Social Science) software version 20 statistical package. They were analyzed with inferential statistics and descriptive data. Qualitative research is a situated activity to describe the state of affairs as it exists at present. Specifically, descriptive statistics (standard deviation, variance, pie charts, and line graphs) were used to describe the general characteristics and compare different factors of enterprises.

The study used quantitative statistics to infer data from the analysis of the relationship between two or more variables and demonstrate how several independent variables might explain the variance in a dependent variable. In addition, to analyze the statistics, methods such as paired T -test, ANOVA, and linear regression were used, and the significance among variables was taken from these instruments.

Table 2 Sample size taken from each sector. *Source:* Study findings

Sector	Population in each sector	Sample taken $N/1 + N(e)^2$
Manufacturing	335	45
Construction	169	23
Urban agriculture	377	51
Trade	1022	139
Service	645	88
Total	2548	346

4 Results and discussion

4.1 Individual characteristics of respondents

Demographic and socioeconomic characteristics of MSE operators were taken from the questionnaire. A total of 346 operators from five different MSE sectors were considered in order to achieve the main objectives of the study. The demographic characteristics such as gender, age, level of education, marital status, and family size were discussed.

According to the survey results, the majority of entrepreneurs were male, and only 40.46% were females. The involvement of females seems less than males. The results indicated that the involvement of females in MSEs was below the regional range in which around 52% of MSEs were owned by females (Tigray Regional State Bureau of Trade, Industry, and Transport, 2008).

According to the results, most MSE operators were found in the economically active working category (i.e., 60.12% of the respondents were in 18–30 years age group) that contribute significantly to the working force of the locality. This situation will improve livelihoods and reduce the unemployed youth age. The age structure reflects the nature of the underlying company (i.e., challenges and limited access to equipment and machinery), which does not often allow the elderly to engage in activities as freely as their younger counterparts. The information gained from discussions between the concerned officials also indicated some instances in which very elderly people participated in different MSE sectors.

The relationship between owners' educational achievements and company growth exists in the empirical sense. According to Zafar et al. (2016), secondary education has no substantial influence on the company's growth. A similar study, on the other hand, shows that owners with a better educational background tend to be more efficient and that formal education allows them to enhance their production, management, and marketing skills. Zafar et al. (2016) explained that the overall level of education and education of small-scale owners in developing countries dictates firm development. Furthermore, according to Fufa (2015), higher education improves the firm's performance as well as external possibilities such as employment prospects. Low education levels and occupational training strongly influenced the chance of becoming an entrepreneur rather than an employee. According to ILO (2003) report, 90% of micro-enterprise owners and 88% of small enterprise owners had a formal education, with 72% and 66% receiving primary and secondary education, respectively. In general, the respondents in this study were women entrepreneurs, many of whom had better levels of education who were trying to manage or learn how to do business.

Based on the findings shown in Fig. 3, most sampled operators (48.55%) attended high school as the highest level of education, while the lowest rank was related to the first degree of education (26.882%). The level of education for the rest of the participants was 5–8 grade (18.73%), diploma (5.67%), 1–4 grade (8.092%), read and write only (6.64%), and illiterate (4.91%). This suggested that many MSEs lacked sufficient educational and technical background to generate income, and few college graduates were engaged in the MSE sector.

According to Table 3, the majority (46%) of the respondents were married. According to Fielden et al. (2000), there is a significant link between marital status and company success. Because of the social, financial, and psychological support, as well as family responsibility and commitments, married men and women worked harder and

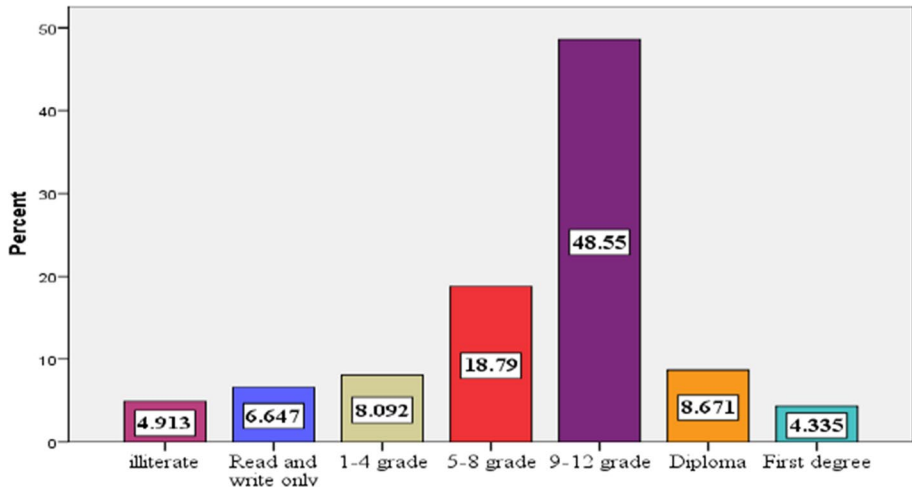


Fig. 3 Educational statuses of respondents. *Source:* Study findings

Table 3 Marital status of respondents. *Source:* Study findings

Status	Frequency	Percent
Divorce	32	9.2
Single	155	44.8
Married	159	46.0
Total	346	100.0

performed better in business management than single and divorced individuals. In contrast, Rastogi et al. (2019) discovered a substantial inverse relation between marital status and professional achievement. According to Yaghi (2016), managers who are married women in the Middle Eastern (Arab) context deal more with social and family responsibilities after marriage, which has an influence on their business.

Family size is one of the main characteristics of households that determine household participation in different social and economic activities (Degefa et al., 2017). A large productive family generates and enhances household income, and this, in turn, enables the family members to be involved in MSE. Moreover, having a large family may indicate that the household has enough labor supply to participate in different income generating activities. The average household size in Ethiopia, based on the recent government population and housing survey, was 4.8 persons (CSA, 2007). Hadis and Ali (2018) assessed micro- and small enterprises in Ethiopia. According to the survey, significant business entrepreneurs have a larger number of families. In the sector, between 36 and 41% of the entrepreneurs had 2–5 and 4–6 individuals per family head, respectively. They stated that a large family would have an excellent chance of owning the firm.

The average family size observed in the study area was 4.67 below the range of what has been shown in earlier studies in Ethiopia (Table 4).

Table 4 Family size of respondents. *Source:* Study findings

Family size	Frequency	Percent
Less than 2	14	4.0
2–5 members	233	67.3
Above 5 members	99	28.6
Total	346	100.0

According to the survey, 190 entrepreneurs (54.9%) used their personal savings as the main source of start-up capital, 85 (24.6%) took loans from micro-finance institutions, 58 (16.8%) borrowed from friends and relatives, and 13 (3.8%) obtained bank loans.

As clearly indicated in Table 6, lack of capital is the major and primary problem that MSEs face. In addition, regarding the source of start-up capital, enterprises that took capital from banks and financial institutions were low compared with those that use informal sources. Respondents also said that if possible, they preferred to start the business by their own savings, and they believed that it is easy to start a business by borrowing from relatives and friends. This means that banks do not provide start-up capital due to lack of collateral, and MSEs do not have organized financial statements. Furthermore, members lack the confidence to take loans from financial institutions. Therefore, operators finance their business by their own capital to create confidence, especially at the start-up. The findings are consistent with Fufa (2015), which examined the growth determinants of MSE in Ethiopia. According to the findings of this study, finance is one of the most important resources in every business. This study examined the factors affecting the growth of MSE from profitability perspective on Nekemte. According to the findings, many MSE operators fail to provide a clear business strategy and project proposal for loan processing because they are less educated. This demonstrates that MSE operators in the study area have difficulty obtaining loans from MFIs due to the MFI system's time-consuming procedures and collateral requirements. The findings of the study were similarly in line with those of Cabral and Mata (2003) and Elston (2002), which found that a lack of financial resources slows a company's expansion to its optimal size.

4.2 The effect of micro- and small-scale enterprises on income generation

4.2.1 Initial capital versus the current capital of the enterprise

Tables 4 and 5 indicates that the amount of initial capital of MSEs to start their business ranges from 1000 to 40,000 birr. Nonetheless, the initial capital of most MSEs (40.2%) was between 1000 and 5000 birr. The initial capital of other enterprises (39%) was between 5001 and 10,000 birr. Comparing the sectors, there is no major difference among them. The initial capital of the majority of sectors was between 1000 and 5000 birr, 4.9% of which was for manufacturing, 13.3% for trade, 6.1% for urban agriculture, 13.3% for service, and 2.6% for construction. Next to 5001–10,000 birr, most respondents of different sectors had the initial capital of 10,001–30,000 birr and shared 5.8% for manufacturing, 15.9% for trade, 6.9% for urban agriculture, 7.8% for service, and 2.6% for construction.

It is very difficult to obtain accurate information about the current capital compared with the initial capital. This is because of the fear of taxes, the fear of new competitors, and sociocultural problems. Despite the researcher showing them an identity card and other

Table 5 Start-up capital of the operators. *Source* Study findings

ETB*	What is your sector type					Total
	Manufacturing	Trade	Urban agri- culture	Service	Construction	
<i>Start-up capital</i>						
1000–5000						
Count	17	46	21	46	9	139
%	4.9	13.3	6.1	13.3	2.6	40.2
5001–10,000						
Count	20	55	24	27	9	135
%	5.8	15.9	6.9	7.8	2.6	39.0
10,001–20,000						
Count	5	28	5	10	3	51
%	1.4	8.1	1.4	2.9	0.9	14.7
20,001–40,000						
Count	3	10	1	5	2	21
%	0.9	2.9	0.3	1.4	0.6	6.1
Total						
Count	45	139	51	88	23	346
%	13.0	40.2	14.7	25.4	6.6	100.0

supporting documentation, the participants are reluctant to reveal the truth. Micro-companies are those with capital stocks of up to 20 000 birr, as mentioned in the last chapter. Such companies in Ethiopia take the majority. The total capital of the majority of companies is between 10,000 and 20,000 birr according to a researchers' survey (54.6%). The majority of MSE operators are therefore at the expected level of capital in the micro- and small sectors.

In accordance with the current capital, the initial capital of the MSEs varies considerably in the amount of capital invested. Thus, the initial capital of most MSEs (40.2%) was between 1000 and 100,000 birr. However, according to Table 6, the current capital of most MSEs (90.2%) is above 10,000 birr.

According to these findings, we can conclude that MSEs contributed to economic growth, employment formation, and income generation for the local community. MSEs, in fact, play a critical role in job creation and income generation. Because they provide jobs and give possibilities for low-income individuals to earn money, these MSEs are more effective in the national economy. MSEs encourage entrepreneurship and protect the economy from economic crises including low per capita income, poverty, and rural unemployment.

4.2.2 Household size of MSE operators and scored income

The respondents were asked to indicate whether there is a relationship between the household size of MSE operators and income saving by running both the null hypothesis and alternative hypothesis.

Table 6 Current capital of the operators. *Source:* Study findings

ETB*	What is your sector type					Total
	Manufacturing	Trade	Urban agri-culture	Service	Construction	
<i>Current capital of respondents</i>						
5000–10,000						
Count	0	113	4	12	3	32
%	0.0	3.8	1.2	3.5	0.9	9.2
10,001–20,000						
Count	29	72	28	49	11	189
%	8.4	20.8	8.1	14.2	3.2%	54.6
20,001–50,000						
Count	9	36	17	16	5	83
%	2.6	10.4	4.9	4.6	1.4	24.0
50,001–100,000						
Count	5	13	1	8	3	30
%	1.4	3.8	0.3	2.3	0.9	8.7
> 100,000						
Count	2	5	1	3	1	12
%	0.6	1.4	0.3	0.9	0.3%	3.5
Total						
Count	45	139	51	88	23	346
%	13.0	40.2	14.7	25.4	6.6	100.0

H0 The increase or decrease in the household size of MSEs does not show a change in the income saving of the operators.

H1 The increase or decrease in the household size of MSEs operators shows a change the in income saving of the operators.

The value “*R*” is used in a model description to indicate the intensity and direction of the relationship between variables. The closer the value reaches $+(-)1$, the greater the negative or positive relation is. In this case, $R = -0.63$, as shown in the table above in model 1. This indicates that the variables usually had a clear and negative relationship. The study showed that R-square was 0.04. This value implies that 0.4% of the difference in the increased revenue of Emba Alaje Wereda operators can be explained by the independent variables (households of micro- and small business operators) (Table 7).

The unstandardized coefficients for the predictor variables and the unstandardized detection code under column B of Table 8 (Model 1) provide us with the coefficients of independent variables ($Y_i = \alpha + \beta X_i$). The beta values show the direction of the relation. The essence of the relationship is indicated by a positive or negative symbol. Therefore, MSE operators’ households are negatively linked to beta (-0.063). The statistical meaning of the relationship is indicated in the third column. Therefore, the regression model is likely to be 0.000 and thus a false predictor and is an acceptable model to display the

Table 7 The relationship between household size and income saving existence. *Source:* Model output

Model summary				
Model	<i>R</i>	<i>R</i> -square	Adjusted <i>R</i> -square	Std. error of the estimate
1	-.063 ^a	.04	.001	26,341.54700

^aPredictors: house hold size

Table 8 Coefficients of determination of household size and scored income. *Source:* Model output

Coefficients ^a					
Model	Unstandardized coefficients		Standardized coefficients	T	Sig
	B	Std. error			
1					
(Constant)	29,292.086	4683.223		6.255	0.000
household size	-1674.572	1426.167	-0.063	-1.174	0.241

^aDependent variable: what is your capital by now

relationship between variables. Overall, a *p*-value of less than 0.05 is recommended as it represents a high degree of trust.

There is a strong negative relationship between the household size of micro- and small enterprises' operators and entrepreneurs' income saving at 95% level of significance. This implies that an increase in the scored income of the entrepreneurs depends to a large extent on the household size of MSE operators. In other words, for a unit increase in the household size of MSE operators, there was a decline in income saving. In accordance with the above results, MSEs with large household sizes were generally getting less income saving compared with MSEs with smaller household sizes. In other words, the large household size of MSE operators saved less compared to MSE operators with a large number of households. This ensures the alternative hypothesis.

4.2.3 Constraints at the start-up phase

Most new business start-ups, no matter how simple or complex, face some challenges during the start-up process. When asked about such challenges, the respondents stated a number of problems they had encountered during the start-up phase. The researcher wants to get information regarding the problems they face at the start-up phase and compare the seriousness of the problems based on the mean.

As indicated in Table 9, when the respondents were asked about the greatest challenges they faced in starting their business, the first three most notable constraints were lack of capital, lack of appropriately skilled labor, and raw material problems which had the mean scores of 1.64, 2.10, and 2.13, respectively. Workplace problems and lack of access to information related to the sector were stated as the fourth and fifth constraints by having means of 2.15 and 2.16. Among the given start-up problems, the lengthy process of obtaining a license with a mean response of 3.13 was the least important problem for new business start-ups.

Table 9 MSEs start-up problems. *Source:* Study findings

Start-up problems	N	Mean	Standard deviation	Variance	Rank
Lack of capital	346	1.64	0.613	0.376	1st
Skill problem	346	2.23	0.537	0.288	6th
Working place problem	346	2.15	0.508	0.258	4nd
Raw material problems	346	2.13	0.506	0.256	3th
Lengthy process to obtain license	346	3.13	0.623	0.388	7th
Lack of appropriate skilled labor	346	2.10	0.438	0.192	2rd
Lack of access to information related to the sector	346	2.16	0.542	0.295	5th

According to Table 10, the majority of the respondents, 112 male entrepreneurs (32.4%) and 83 female entrepreneurs (24.0%), believed that it is difficult to start a new business. In addition, 53 (15.3%) and 26 (7.5%) male and female entrepreneurs believed that it is difficult to express. Fewer number of the respondents, i.e., 22 respondents (6.4%), answered that it is very difficult to start a business. The remaining 18 (5.2%) and 32 (9.2%) respondents answered that it is, respectively, very easy and easy to start a business. This indicates that the majority of the respondents chose difficult to express. Therefore, the researcher inferred and implied that despite the enabling environment created since 1997, it may be difficult for the entrepreneurs to start a new business. When we see the difference between male and female considering the same percentage of male and female, 27.4% of each group explained that starting a new business is “easy” and “very easy.” Therefore, the researcher

Table 10 Evaluation of the difficulty to start. *Source:* Study findings

How easy is it to start a new business?	What is your gender		Total
	Male	Female	
<i>Very easy</i>			
Count	13	5	18
% of Total	3.8%	1.4%	5.2%
<i>Easy</i>			
Count	13	19	32
% of Total	3.8%	5.5%	9.2%
<i>Difficult to express</i>			
Count	53	26	79
% of Total	15.3%	7.5%	22.8%
<i>Difficult</i>			
Count	112	83	195
% of Total	32.4%	24.0%	56.4%
<i>Very difficult</i>			
Count	15	7	22
% of Total	4.3%	2.0%	6.4%
<i>Total</i>			
Count	206	140	346
% of Total	59.5%	40.5%	100.0%

infers that due to the government's policy of gender equality, women are participating in different entrepreneurial activities like men.

4.2.4 Problems in running the business

After engaging in the business, entrepreneurs perform a lot of activities and interact with different people and other entrepreneurs to meet or achieve their objectives. During the process of supplying products or delivery of services, MSEs were affected by different factors.

Figure 4 indicates that 207 respondents (60%) got credit facilities for their working capital requirements from different credit granting institutions. The response from these 207 (60%) credits users indicates that the majority (i.e., 115 (55.78%)) of the respondents replied that their sources of credit for working capital were micro-financial institutions, and 42 respondents (20.52%) used their personal saving. In addition, 33 respondents (15.32%) got credit for their working capital requirements from banks, and the remaining 17 respondents (8.38%) borrowed from their relatives and friends.

Although the majority of the entrepreneurs started their business by personal saving, after starting the business, about 55.7% of the credit users took credit for working capital requirements from micro-finance institutions. Therefore, the respondents said that they developed the confidence to perform their obligation. In addition, financial institutions, especially micro-finance institutions, easily accepted their requests after presenting their financial capacity. Accordingly, the researcher implied that after getting experiences in conducting the business and developing confidence, entrepreneurs were ready and willing to take credit from financial institutions, especially micro-finance institutions. In addition, micro-finance institutions were willing to give credit after they got information about the creditworthiness of the enterprises. Respondents were also asked why they did not get the credit facilities for their working capital requirements, and 40% of them answered that they had not gotten any credit facilities at all.

Table 11 indicates the reasons for not getting credit, and the majority of the respondents, i.e., 189 entrepreneurs (54.6%), answered that even if they wanted to get credit, because of lack of required collateral, they could not use credit facilities. 78 respondents (22.5%) did

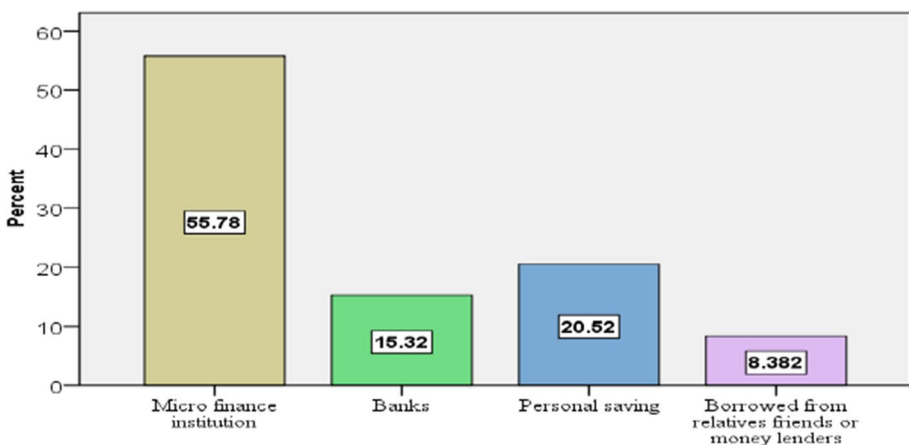


Fig. 4 Sources of funds for working capital

Table 11 Reasons not to get credit. *Source:* Study findings

Reasons not to get credit	Frequency	Percent
Lack of required collateral	189	54.6
No need of credit	78	22.5
High interest rate	54	15.6
Lack of appropriate credit facilities	25	7.2
Total	346	100.0

not need credit for working capital requirements. The remaining 54 (15.6%) and 25 (7.2%) respondents did not use credit due to the high interest rate and lack of access to credit facilities. As indicated in the table above, about 77.1% of the respondents did not get credit because of the problems related to financial institutions. On the other hand, around 22.9% of the respondents did not want to get credit due to the lack of confidence to make payment and availability of enough capital for working capital requirements. Accordingly, the researcher implied that even if the entrepreneurs want to get credit, banks are not willing to give loans. In addition, they do not have a favorable policy that can provide credit facilities for MSEs.

4.2.5 Access and costs of infrastructure

According to Olusola and Olusola (2013), inadequate, inefficient, and non-functional infrastructure facilities drive up the operating costs because MSEs are forced to rely on private utility providers (i.e., road, water, electricity, transportation, communication, etc.). The questions related to access and costs of the infrastructure are presented below. The mean scores of the responses were calculated by considering “1” not accessible, “2” sometimes accessible, and “3” accessible.

As indicated in Table 12, access to infrastructures, i.e., access to water, electricity, telephone service, and transportation, has the mean score around 2, i.e., 1.47 for water, 1.88 for electricity, 2.32 for transportation, and 2.36 for telephone services. The mean score around 2 indicates the occasional interruption of the infrastructural facilities. The respondents' responses regarding the costs of infrastructures are presented in the table below. To calculate and compare the mean, the respondents were asked to choose “1” for cheap, “2” for fair, and “3” for expensive.

As indicated in Table 13, the mean response of the respondents indicates that the cost of telephone service is high by having a mean of 2.41, followed by transportation and

Table 12 Access to infrastructure. *Source:* Study findings

Problems related to access to infrastructure	Lack of access to water	Lack of access to electricity	Lack of access to telephone service	Lack of access to transportation
<i>N</i>	346	346	346	346
Mean	1.4769	1.8815	2.3208	2.3642
Std. deviation	0.61459	0.42441	0.64917	0.78411
Variance	0.378	0.180	0.421	0.615
Rank	1st	2nd	3rd	4th

Table 13 Cost of infrastructure. *Source:* Study findings

Cost of infrastructure	Cost of water	Cost of electricity	Cost of telephone service	Transportation cost
<i>N</i>	346	346	346	346
Mean	1.53	1.93	2.41	2.40
Std. deviation	0.633	0.374	0.559	0.744
Variance	0.400	0.140	0.313	0.554
Rank	1st	2nd	4th	3rd

electricity costs with an equal mean score of 2.40 and 1.93, respectively. Cost of water, with a mean score of 1.53, was the least in comparison with other infrastructural facilities. Regarding this issue, the head of the MSEs office stated that nowadays, infrastructural facilities, especially telephone service and transportation, are supplied at a low cost, but there is some interruption of electric power. Therefore, due to the increasing demand for infrastructural facilities (i.e., electricity, water, telephone, and transportation) and the difficulty to distribute them, there may be problems in access to water and electricity. The result indicates occasional interruptions of access to infrastructures. Moreover, water and electricity are costly infrastructural facilities for entrepreneurs. Consequently, the interruption of infrastructural facilities and the cost of infrastructures may be due to the mismatch between the supply and demand of these facilities.

4.2.6 Work premises

The study also tries to assess the conditions of working premises of the MSEs, whether they conduct their business at home or rented premises. The premises include the working premises as well as the marketing ones.

As the result indicates in Table 14, the majority of the respondents, i.e., 258 entrepreneurs (74.6%), undertake their business at rental homes, and the rest (i.e., 88 respondents (25.4%)) undertake their business at their own homes. The respondents who did their business at home were asked about the reason they conducted the business at home. The responses of the respondents were presented as follows. The majority of the respondents who do the business at rental homes argue that even if the rental home is suitable for them, the amount paid for the rent is too high. In addition, there is a periodic shift of premises due to the interest of the owner to undertake a similar business. In general, some respondents carry out their business at their own homes due to the following reasons.

Table 15 indicates the reasons of the respondents for the question of why you are conducting your business at home. The reasons were the high cost of rent, suitability of my

Table 14 Working premises. *Source:* Study findings

Where do you undertake your business	Frequency	Percent
At own home	88	25.4
Rental house	258	74.6
Total (<i>N</i>)	346	100.0

Table 15 Reasons to carry out the business at home. *Source:* Study findings

Reasons to conduct at home	Frequency	Percent
High cost of rent	46	52.27
Suitability of my home	19	21.59
Lack of availability of rental rooms	23	26.13
Total (N)	88	100.0

home, and lack of availability of rental rooms. A majority of the respondents, 52.27% (46), cut the high cost of rent and select their homes as working premises, and 26.13% (19) use their own homes due to the lack of availability of rental rooms. The remaining, i.e., 2.6% (3), choose their own home due to its suitability. The result indicates that about 52.27% of the respondents who conduct their business at home state the high cost of rent as the reason for selecting their home as a working premise. Accordingly, the researcher implied that the number of enterprises increases from time to time, and the high cost of rent as a problem is due to an increase in the number of enterprises. In other words, the demand for rental homes increases and it makes the rental cost high.

Even if the entrepreneurs conduct their business either in rental homes or in their own homes, they face problems that are related to some other factors. In addition, the researcher asked whether the workplaces for the MSEs were suitable for them or not, and the responses are presented in Table 16.

As indicated in Table 15, respondents were asked about the factors that hinder MSEs' activities regarding working premises. The seriousness of these factors was presented by comparing their means. Among the problems, the given narrowness of the workplace was the first serious problem with a mean of 1.67, high rental expense of working premises was the second with a mean of 2.11, and skill problem was the least with a mean of 2.18. Respondents also raised other factors as the problems of their working area, including lack of infrastructural facilities and high rental expenses, and because of the pressure of the owner, entrepreneurs were dependent in making decisions regarding the working area.

4.3 Role of SMEs in achieving sustainable development goals

MSMEs are regarded as an essential pillar in achieving sustainable development goals (SDGs) due to their diversified operating skills. The subject MSMEs "Small Businesses, Big Impact" emphasizes the relevance of MSMEs in achieving sustainable development (Kamal-Chaoui, 2017).

MSMEs employ people directly in their institutions to achieve goals such as Poverty Alleviation (Goal 1), Gender Equality (Goal 5), Decent Work and Economic Growth (Goal

Table 16 Problems associated with working place. *Source:* Study findings

Problems related to working place	Working place problem	Long distance from the market	Skill problem
N	346	346	346
Mean	1.67	2.11	2.18
Std. deviation	0.642	0.637	0.504
Variance	0.412	0.405	0.254
Rank	1st	2nd	3rd

8) and Industry Innovation and Infrastructure (Goal 9) and Reduced Inequalities (Goal 10) (Verma & Nema, 2019). MSEs help achieve certain goals through their specific operational efficiency including Zero hunger (goal 2), Affordable and Clean Energy (Goal 7), Responsible Consumption and Production (Goal 12) and Partnership for Goals (Goal 17). MSMEs also contribute to SDGs by performing Corporate Social Responsibility (CSR) activities in various forms to the goals of Good health and well-being (Goal 3), Quality Education (Goal 4), and building Sustainable cities and communities (Goal 11) (Orchard, 2017).

Hence, MSE is one of the sectors with the most potential to influence the advancement of most SDGs. MSEs are an important player in this effort because of their operational flexibility and variety. If MSEs prosper in the coming years, it will undoubtedly aid in the creation of more jobs, poverty alleviation, regional imbalance reduction, gender equality promotion, etc., so contributing significantly to the achievement of the SDGs. In this competitive era, it is critical that MSME issues are properly addressed through appropriate government initiatives and that entrepreneurial capabilities are adequately maintained (Ionica et al., 2017).

5 Conclusion and recommendations

The empirical results of this study explained that micro- and small-scale businesses can contribute significantly to the boosting of income generation for marginalized people which results in poverty reduction and economic growth. On the other hand, MSEs encountered different determinant factors. This study attempted to address an important issue in the contribution of MSEs to community livelihood through the role of financial capitals in income generation, economic growth, and sustainable community development. The main implication of the current study is that the MSEs generate income and employment opportunities which are more influential than other sectors. If MSEs are properly managed and adequate intervention approaches are established, additional capacity is still available to further increase the existing employment opportunities to alleviate poverty. In this respect, the findings showed that MSEs contributed to economic growth, employment formation, and income generation for the local community. Furthermore, in the face of economic problems such as low per capita income, poverty, and unemployment in rural regions, MSEs create a culture of entrepreneurship and a secure economy.

The current study's findings showed that there was a gender gap over participation in different MSE sectors. In addition, many sectors which can employ more people are still managed by men. This shows that the bodies involved, such as the MSE Development Offices, Bureau of Cooperatives, and Bureau of Works and Social Affairs, should join their hands and allow women to enter traditionally male-dominated sectors such as construction, manufacturing, and urban farming. Above all, greater efforts should be made to consider both female and male-owned businesses. Formal education and the performance of MSEs do not show a definitive relationship to one another. Previous studies have shown that colleges are closer to the operation of these MSEs. However, most entrepreneurs responded that they had attained secondary school education. Therefore, more work is needed to bring capacity to the next level and make its services accessible to the MSE.

MSE operators should give training to their new partners since training and capacity building are vital to improve production, marketing, and profitability. Refresher training is also required for those who have already completed the course. MSE representatives frequently receive additional training, and those who receive it should pass it on to others

because they are all working for the same goal. The government has additional resources for MSEs that have yet to be utilized, and it can improve the quality of MSE operations in order to expand geographically and serve a larger community. As a result, the government should reduce political interest, increase socioeconomic development programs, and replace MSE operators and community leaders.

MSE offices should provide periodic supportive supervision to assist and answer their questions on time. Furthermore, officers from Wereda MSEs' offices have been observed to be unmotivated to conduct monitoring and evaluation in a way that results in real changes for the operators and community.

Another important issue raised in this study was the factors challenging MSEs. Regarding these factors, the following points appear to be the determinant ones affecting MSEs before and during the start-up in the study area:

- To meet the growing demand for MSE activities, physical infrastructural facilities are poorly created and increased. As a result, federal and regional governments, as well as some zonal and Wereda administrative units, should focus on improving and disseminating infrastructures such as roads, electricity, and pure water. Government and micro- and small business leaders should expect to put in a lot of effort to change the public's perception of the MSE sector.
- The growth of MSEs in the study area necessitates a variety of improvements in general, as well as improvements in the working areas of operators in particular. Infrastructure (roads) is being neglected in some areas. The improvement of this vital infrastructural equipment should be facilitated by governmental and non-governmental organizations to equalize demand and supply.
- Enterprises should be structured so that they may obtain raw materials from other firms in the manufacturing process, and the government should provide a favorable business environment in collaboration with society and other prospective groups. Furthermore, government support in establishing raw material sources and finding viable markets for such firms should be provided in order to create demand from outside of the towns.
- The working environment has been discovered to have a significant positive impact on MSEs' growth. As a result, the MSEs development office, in collaboration with the municipality, should work to encourage MSEs to have their own working spaces and to provide them with spaces at reasonable rents.

This study also confirmed that these contributions are bringing massive changes. However, there was a question of scale and continuity. Improving the operators' capacity to increase their performance and productivity is therefore very important. Furthermore, it is necessary to develop continuous capacity-building programs to enhance the capacity of MSEs, particularly human capital, by anchoring them with relevant training institutions that meet the needs of MSEs. Different problems with varying degrees of influence on MSEs can be dealt with in different ways at different times, depending on the availability of resources and conditions in the operational environment. As a result, extensive study on each sector should be conducted on a regular basis in order to identify the primary spatial difficulties faced by MSEs. The government and other responsible entities should research future business circumstances and favorability in order to set up the business environment in such a way that it can continue to assist businesses in the long term. Overall, sustainability is described as fulfilling present demands without endangering the capacity of future generations to meet their own, and it is based on three pillars: economic, environmental, and social. According to this definition, in this study, only the role of economic

indicators in rural growth and development has been studied. The main reason for this was that at the time of this study, due to the outbreak of Covid-19, the civil war in Ethiopia, and lack of access to financial resources, it was not possible to study these indicators more comprehensively.

Declarations

Conflict of interest No potential conflict of interest was reported by the authors.

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