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EVALUATING THE ROLE AND CHALLENGES OF MICRO, SMALL, AND MEDIUM ENTERPRISE CONTRACTORS ON BUILDING CONSTRUCTION PROJECTS IN NORTH SHEWA ZONE

BY

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Management

Evaluating the Role and Challenges of Micro, Small, and Medium Enterprise Contractors on Building Construction projects in

North Shewa Zone, Amhara region

BY

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Certificate of Approval

This is to certify that the thesis prepared by **Abebayehu Debebe Birhane**, entitled: "**Evaluating the role and challenges of Micro, Small, and Medium enterprise contractors on building construction projects in North Shewa Zone"** and submitted in partial fulfillment of the requirements for the Degree of Masters of Construction Technology and Management complies with the regulations of the College and meets the accepted standards with respect to originality and quality.

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DECLARATION

I, **Abebayehu Debebe Birhane**, the under signed, declare that this thesis entitled:" **Evaluating the role and challenges of Micro, Small, and Medium enterprise contractors on building construction projects in North Shewa Zone"** is my original work. I have undertaken the research work independently with the guidance and support of the research supervisor. This study has not been submitted for any degree or diploma program in this or any other institutions and that all sources of materials used for the thesis has been duly acknowledged.

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CERTIFICATE

This is to certify that the thesis entitled: **"Evaluating the Role and Challenges of Micro, Small, and Medium enterprise contractors on building construction projects in North Shewa Zone ",** submitted in partial fulfillment of the requirements for the degree of Masters of Science in construction and technology management under Postgraduate Studies, Addis College, is a record of original work carried out by me and has never been submitted to this or for any other institution to get any other degree or certificates. The assistance and help received during the course of this investigation have been duly acknowledged. Therefore, I recommend it to be accepted as fulfilling the thesis requirements.

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ABSTRACT

Micro, Small and Medium enterprise contractors play a significant role in building construction industry, however, their specific role and challenges on building construction projects in Ethiopia have not been thoroughly investigated. This study aims to address this gap by evaluating the roles and challenges of Micro, Small and Medium enterprise contractors on building construction projects, assess policies and strategies to enhance their roles in North Shewa Zone. Non-probability sampling (purposive sampling) techniques and stratified random sampling used to get information from respondents, and employs a mixed methods approach combining quantitative and qualitative data analysis technique were utilized. A total of 54 (excluding 9 interview and 4 document review) questionnaires were sent to selected sample of respondents. A descriptive and explanatory research design was used to attain the objective of the study. The results of the questionnaires were analyzed using SPSS software determine Relative Importance Index, multiple linear regression and results using Pearson's coefficient were used to understand the correlation between the variables, in order to identify the relationships between scaled variables. Job creation, local content promotion, enhance competition between contractors, improve quality in building construction projects, cost effectiveness, and reduction of construction period were identified as major top six contributions of Micro, Small, and Medium enterprise contractors for the building construction industry and the results indicated that financial problems, management problems, ethical problems, infrastructural barriers, political, regulatory, and policy-related problems, and technology-related problems are identified as major challenges and barriers for Micro, Small, and Medium enterprise contractors that are working in the building construction industry in the North Shewa Zone. Findings revealed that financial support and assistance, simplifying the regulatory environment, encouraging collaboration and partnerships and large contractors are the major policies and strategies to enhance the contribution to the building construction industry in North Shewa Zone. Finally, based on the analysis of the results, recommendations have been proposed that enables to maximize the contributions of Micro, Small, and Medium enterprises contractors on building construction industry.

Key words: Micro, Small and Medium enterprise contractors, building construction projects, role, challenge, North Shewa Zone

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LIST OF ACRONYMS AND ABBREVIATIONS

AAHDPO	Addis Ababa housing development policy
CSA	Central Statistical Agency
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
FEMSEDA	Federal Micro and Small Enterprise Development Agency
GDP	Gross Domestic Product
GTP	Growth and Transformation Plan
IDS	Industrial Development Strategy
ILO	International Labor Organization
KPIs	Key performance indicators
MSE	Micro and Small Enterprise
MSEs	Micro and Small Enterprise
MSMEs	Micro, Small and Medium Enterprises
MUDC	Minister of Urban Development Construction
MOTI	Ministry of Trade and Industry
MTI	Ministry of Trade and Industry
PM BOOK	Project Management Book
REMSEDA	Regional Micro and Small Enterprise Development Agency
SME	Small, Medium Enterprise
SMMEs	Small, Medium, and Medium Enterprises
SPSS	Statistical Package for Social Sciences
TVET	Technical and Vocational Educational Training
UNIDO	United Nations Industrial Development Organization
WB	World Bank

CHAPTER ONE

INTRODUCTION OF THE STUDY

1. Introduction

This chapter provided the reader with an overview of the entire thesis. The study's background, problem statements, general objective, specific objectives, research questions, scope of the study, significance of the study and limitations are all covered in this thesis format.

1.1 Background of the study

Ethiopia is one of the developing countries in the world, and its population is increasing from time to time. As per the growth of the population, the country's requirement for more intellectuals is on the verge of opening so many schools, TVET Colleges, and Universities to generate more professionals in different fields than in previous times. In order to create more job opportunities, keep up with new technologies, fulfil the demands of society, and solve different problems, the government of Ethiopia is attempting and implementing different systems, such as micro, small, and medium enterprises (MSMEs). Micro, small, and medium enterprises (MSMEs) are the backbone of any economy. Now, when governments or international institutions put forward a plan or policy, they show great concern about the role of MSMEs in the economy, as they know that these businesses are crucial to economic growth and development (Dokki, 2014).

The Federal Democratic Republic of Ethiopian government created a National Micro and Small Enterprise (MSE) development and promotion policy in 1997. This policy helps to foster the sector's expansion and growth by creating the necessary conditions. The strategy framework's main goal was to foster an environment that would benefit MSE, enabling them to support economic growth, generate long-term employment, improve MSE-to-MSE cooperation, and serve as the foundation for medium and large-scale businesses. The Federal Micro and Small Enterprise Development Agency (FEMSEDA) were founded in 1997 to oversee Ethiopia's MSE development in response to the MSEs Development Strategy. The Ministry of Urban Development and Construction is in charge of overseeing the agency, which was founded as an independent government organization (Berihu et al., 2014).

Projects have largely not been delivered on time, within budget and to the expected quality standards. In short, construction too often fails to meet the needs of modern businesses and impacts on their competitiveness in international markets and rarely provides best value. Construction must improve its performance and achieve its objectives and targets in terms of predictability, cost, time and quality (Ofori, 2009). It is therefore important for construction to take measures to improve performance. This has now been recognized by several developing countries at various levels of socio-economic development.

Key performance indicators (KPIs) can be used to assess the performance of construction projects. KPIs are used to help clients get their projects done correctly, on time, on schedule, under budget, without errors, efficiently, safely, and by profitable businesses. As a result, consistent clients anticipate annual savings in project expenses and duration from their construction team through ongoing improvement. (KPIs) are also a crucial part of any organization's journey towards best practices, as they may be utilized for benchmarking (Peter and Evelyn, 2015).

In Ethiopia, since different professionals are graduating and engaging in the construction industry, micro, small, and medium enterprises contractors are becoming very helpful for them, for society, the government, and also for the country in accomplishing the goal of making the industry more advanced while attacking poverty and providing a better life for society. Nevertheless, despite the significance of these enterprises, challenges including unskilled workers, political and financial concerns, and a lack of technological acceptance frequently impede their growth. Furthermore, rather than obtaining legal financing, which necessitates drawn-out and complex procedures (such as registering as an entity), MSMEs who run these firms typically rely on informal financial sources such as borrowing from friends, family, and rotating credit associations (Dokki, 2014).

As described above, even though it seems like a great system with respect to creating more job opportunities, engaging professionals together, and achieving the intended objectives, their roles and challenges to the construction industry are not yet well studied. Therefore, this study will attempt to examine the role of MSMEs contractors to the building construction sector, challenges that occurred, and how to overcome these challenges in the study area.

1.2. Statement of the problem

This research is designed to evaluate the role and challenges of Micro, Small, Medium enterprise contractors on building construction projects in North Shewa Zone. Poverty and unemployment are the deep rooted problem of many developing countries particularly in Ethiopia. Developing countries usually view MSMEs as a dynamic force for sustained economic growth and job creation. These enterprises not only create sustainable opportunities by expanding private-led employment, but they also contribute to economic growth by bringing innovative products and services to market, increasing economic competitiveness and efficiency. Over the past few years, countries in the Middle East and North Africa region have been aiming to build stable and sustainable economies by diversifying and expanding an enterprise base across a range of different sectors, thus improving the competitiveness of the region's private sector. By enlarging the Micro, Small, and medium enterprises base, these countries hope to create opportunities for locals and motivate innovation in higher value-added sectors (Dokki, 2014).

While MSMEs play a critical role in construction industries worldwide, their value-adding activities and constraints encountered require deeper empirical investigation (Alibabaei et al., 2019). In Ethiopia specifically, over 90% of business are MSMEs accounting for 35-40% of GDP and 70% of private sector employment (Bureau of statistics, 2017). However, limited data exists regarding the contributions and challenges faced by MSMEs contractors within significant segment.

The construction industry is becoming one of the great industries of the country here in Ethiopia too, in order to advance the industry more , proceed with the technology of the world and improve the life of the society and the related professionals ,the countries government is providing the society and the contractors with different systems for achieving the intended goal. The construction industry heavily relies on the contributions of micro, small and medium enterprise contractors particularly in the context of building construction projects. Despite the vital role played by micro, small and medium construction enterprises (MSMEs) in the construction industry, there remains a gap in understanding the specific contributions and challenges faced by these entities. This knowledge gap hinders the ability of policymakers, project managers, and industry stakeholders to effectively harness the

potential of MSMEs contractors and promote sustainable construction practices. The problem lies in the limited research conducted on the role and impact of MSMEs contractors in building construction projects. While there is some literature available that discusses the importance of MSMEs contractors in the construction industry as a whole, there is a lack of in-depth studies that focus specifically on their contributions in building construction projects. This gap prevents a thorough understanding of the value that MSMEs contractors bring to these projects and hinders the development of strategies and policies to support their growth and maximize their impact. Without a comprehensive evaluation of the contribution of MSMEs contractors, it is challenging to determine their role in project delivery, quality management, cost effectiveness, innovation, and employment generation. This lack of understanding limits the ability to implement targeted interventions and support mechanisms that can enhance the performance and sustainability of building construction projects.

Therefore, this research was conducted to investigate MSMEs role and challenges to building construction projects, identify the main issues MSMEs contractors are facing, and attempt to offer a remedy for any negative aspects. By filling this research gap, we can gain insights into the specific value proposition that MSMEs contractors offer and identify opportunities for their further growth and development .This knowledge will enable policy makers, project managers, and industry stakeholders to make informed decisions and implement effective strategies that leverage the contributions of MSMEs contractors, ultimately leading to improved project outcomes and sustainable construction practices.

1.3 Objectives

1.3.1 General Objectives

The main objective of this research is to evaluate the role and challenges of MSMEs contractors' on building construction projects in the North Shewa Zone.

1.3.2 Specific Objectives

1. To assess the policies and strategies for enhancing MSMEs contractors role to the building construction industry in the study area.
2. To examine the roles of MSMEs contractors in the building construction sectors within the study area.

3. To explore the current challenges and barriers facing MSMEs contractors in building construction projects in the study area.

1.4 Research Question

In order to evaluate the role of MSMEs contractors to building construction projects and their obstacles, the study will attempt to answer the following main research question:

1. What policies and strategies are in place to enhance the role of MSMEs contractors in the building construction industry in the study area?
2. What are the roles of MSMEs contractors in building construction sectors within the study area?
3. What are the major challenges and barriers for MSMEs contractors in building construction projects in the study area?

1.5 Scope of the Study

The study has established a defined thematic, special, and temporary scope to rigorously investigate the research problem within the feasibility of this study. Thematically, the study is mainly focused on evaluating the MSMEs contractors role, challenges, and policy and strategy support needs specific to the building construction projects. It is focused on examining the specific role and challenges of MSMEs contractors in the context of building construction projects in the North Shewa Zone. The data was gathered from January 2024 to July 2024. Spatially, scope of the study is limited to North Shewa Zone, Amhara region. For the temporary scope, primary data collection narrowly targeted at understanding contemporary experiences of MSMEs contractors presently undertaking building projects in the study region. The time frame considered recent years to aid on going policy updates. Mixed quantitative and qualitative methods would gather insights directly from the population to address clearly delineated objectives. Analysis utilized established frameworks from the literature rather than proposing novel theories. Together, these boundaries adequately concentrate the investigation on gathering original empirical evidence from the sector and population most relevant to filling local knowledge gaps identified, as outlined to fulfil the study purpose.

1.6 Limitations of the Study

The research has been narrowed to cover micro, small, and medium-sized contractors registered with enterprises in the North Shewa zone. This study has solely looked at the building construction projects and lack of in-depth analysis in the North Shewa zone and does not show their role to the general economy or the contractors themselves. The study only investigates MSMEs contractor roles to society, building construction projects, and the current challenges faced in the North Shewa Zone. Even though evaluating all MSMEs contractors in the nation would make the findings relevant.

1.7 Significance of the Study

The rationale for selecting this study was based on an appreciation of the findings of a study that aims to identify MSMEs as having meaningful results on economic development, reducing poverty, minimizing unemployment rates, and enabling sustainable industrial development in the country's economy.

Secondly, the result will help contractors in the following ways: providing data-driven evidence of the tangible contributions MSMEs contractors currently provide to building projects; the potential to strengthen MSMEs profile and bargaining power when engaging with larger client firms; being able to address the potential challenges from an informed position, avoid them, or devise strategies on how to overcome them; and providing input for further studies.

Thirdly, this study will provide us with a deeper understanding of not only MSMEs roles to the building construction industry but also the practical challenges faced in their operations through qualitative interviewing, and the recommendations resulting from the analysis may provide the basis for future collaborative work with stakeholders in implementing solutions.

Fourthly, this study would also be significant to advancing knowledge and evidence in the scientific research community in the following ways; it aims to address an existing gap in empirically exploring the roles and operational realities of MSMEs contractors, specifically in Ethiopia’s building construction industry and locally in North Shewa Zone. Comparative findings between micro, small, and medium-sized construction firms add to knowledge on

differentiating impacts by enterprise scale and facilitate future research on the construction industry by providing future scholars with a basis for reference.

Moreover, this study would also be highly significant for policymakers and financial institutions in regulating rules and regulations that encourage the development of MSMEs contractors. It will also benefit construction client organizations, local universities, international partners, and future student researchers.

1.8 Organization of the paper

There are five chapters in this study. The first chapter serves as an introduction to the research, giving a general overview of the study's background, problem statement, objectives, scope, and constraints. In the second chapter, review of related literatures thoughts and discussions regarding the contribution of MSMEs contractors, key performance indicators, and major obstacles are presented. The research approach used to accomplish the study's goals is covered in the third chapter. An overview of the research design, data sources, research instruments, research population, sampling strategy, sample size distributions, and analysis methodology are presented. The results and discussions section is covered in the fourth chapter. The final chapter (chapter five) includes the conclusions drawn and suggestions offered in light of the study's key findings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

A comprehensive literature review has been carried out to improve the understanding of the research objective. This chapter covers the review of theories and related literature by other authors that would add to a clearer understanding of the study and the study variables in Particular. In order to develop a better understanding of the research objective, a comprehensive literature review has been conducted. MSMEs are the cornerstone of every economy. Nowadays, when governments or international institutions propose a strategy or policy, they express considerable concern about the role of MSMEs in the economy, knowing that these enterprises are critical to economic growth and development. Financial and political concerns, a lack of technological adoption, and inexperienced workers frequently hinder such firms, despite their importance. Furthermore, MSMEs who own these enterprises tend to use informal funding from relatives, friends, and rotating credit associations rather than formal financing, which entails lengthy and expensive procedures (Including registering as an entity) (Dokki, 2014).

2.2 Definition of Significant Terms

Micro Enterprise: when the numbers of its employees (including the owner or family) are not greater than five and total asset is less than 100,000 ETB for industrial sector and less or equal to 50,000 ETB for service sector (Central Statistics agency, 2010/2011).

Small enterprise: an enterprise with 6-30 employees and total asset 100,001 to 1,500,000 ETB for industrial sector and 50,001 to 500,000 ETB for sector (Central Statistics agency, 2010/2011).

Medium enterprise: In Ethiopia ,the definition of medium enterprise contractors is similar ,with the ministry of industry defining them as enterprises with fewer than 100 employees and annual turnover of less than Birr 50 million (MOI,2020).

MSMEs contractors: This of course, stands for Micro, Small, and Medium sized enterprise contractors. These are backbone of any economy and they play a vital role in job creation,

innovation, and economic growth. Micro, Small, and Medium sized enterprise involved in construction contracting defined by the UNIDO as non-subsidiary, independent firms with less than 250 employees (UNIDO, 2021).

Performance: In this study performance of small and medium contractors refers to the ability of the individual contractor to bid for a higher value contracts over a given duration of practice in the expansion of the value of work and complexities in projects which they are able to undertake **(**Fredrickndaire K., 2012).

Enterprises: This is an activity that is carried out by an entrepreneur to create value (Abraham A.A., 2020).

Role: this term refers to the role or input that MSMEs contractors play in building construction projects. It is a word that implies responsibility, duty, and impact.

2.3 Theoretical review

The MSMEs sector everywhere is characterized by highly diversified activities which can create livelihood opportunities for a substantial segment of the population. This implies that the sector is a quick remedy for unemployment and poverty problem. The realization of a modest standard of living through curbing unemployment and facilitating the environment for new job seekers and self-employment requires a direct intervention and support of the government and other concerned stakeholders. Hence, in order to channel all necessary support and facilities to this diversified sector, a definition is needed to categorize the sector accordingly (Tasisa A., 2014).

However, coming up with a universally applicable definition of MSEs is found to be difficult. This is so because the criteria and ways of categorizing enterprises as micro, small and medium vary from country to country and from organization to organization. The absence of such uniform definition of MSEs has created a difficulty. Accordingly, Tegegne and Meheret (2010) argued that the lack of a single or globally applicable definition has made the task of counting the number of MSEs and assessing their impact extremely difficult across countries, though the rationale for most governments to make such a definition and categorization is mainly for functional and promotional purposes to achieve the desired levels of development of the sector (Tasisa A., 2014).

After indicating that volume of capital, size of employment, market share, growth performance and annual and monthly turnover are some of the common criteria used widely, Tegegne and Meheret (2010) ,reported that, in addition to these criteria, 17 enterprises can be categorized on the basis of past growth performance as new-starts, no growth firms, small growth firms and graduates. The other categorization distinguishes enterprises as livelihood survival and growth oriented enterprise. In their extensive study carried out to assess the policy environment for promoting micro and small enterprises ,the definition of enterprise sizes is based on three criteria namely the level of capital investment, number of employees and turnover (Tasisa A.,2014).

2.3.1 Definition of Micro, Small and Medium Enterprise (MSMEs)

There is no universal definition of micro, small, or medium-sized enterprises. Each country has developed its own definition to fit its context and economic circumstances. Other additional criteria, such as business turnover or capital investments, may also be used. A WB Group study suggests that there are between 365 and 445 million MSMEs in emerging markets, with 25–30 million being formal SMEs, 55–70 million being formal micro enterprises, and 285–345 million being informed enterprises. International definitions of MSEs use three basic criteria: the number of full-time employed persons (staff headcount), total assets, net assets, and paid-up capital, and total annual sales turnover. Some countries and international organizations also use the legal status of enterprises as a supplementary criterion. Definitions of MSMEs are used in all countries, tailored to their economic condition and overall level of development (Mamo A., 2019).

The definition of small and medium enterprises is important for statistics preparation, monitoring sector health, benchmarking against other economies, providing arbitrary thresholds for tax or regulation imposition, and determining eligibility for public support. Microenterprises and small enterprises (MSEs) are distinct economic entities within a country's national boundary. Ethiopia has three different definitions of MSEs, including the 1997 MSEs development strategy, the Ministry of Trade and Industry (MTI), and the definition given by the Central Statistics Agency (CSA).

In Ethiopia, there is a lack of clear definition at the national level to provide a shared understanding of the MSE sector. While the Ministry of Trade and Industry (MTI) defines

capital investment, the Central Statistical Agency (CSA) utilizes employment and promotes capital-intensive technologies as a standard. MTI's definition, which uses capital investment as a yardstick, was devised in 1997 to guide the formation of micro- and small-scale enterprises. According to the MTI, microenterprises are businesses in both formal and informal sectors that have a paid-up capital of not greater than Birr 20,000 and exclude high-tech consultancy firms and other high-tech establishments. Small enterprises have a paid-up capital of more than Birr 20,000 but less than Birr 500,000, excluding high-tech consulting firms and other high-tech establishments. On the other hand, CSA categorizes enterprises into different scales of operation on the size of employment and the nature of equipment. According to CSA, a micro enterprise is one with fewer than 10 workers; those with 10-50 workers constitute small enterprises while medium and large scale enterprises are those with more than 50 employees (Tasisa A., 2014).

Currently, the revised MSEs strategy that divided MSEs in terms of product and service defined in the following ways. The 1997 definition used paid-up capital as a criterion, focusing on employment creation and being incompatible with the current foreign exchange. The Central Statistics Agency's definition focuses on the size of employment and automation, while the 2010/2011 improved definition defines microenterprises under industry and service sectors. Microenterprises operate with five people, including the owner, and their total assets do not exceed Birr 100,000. Small enterprises operate with 6–30 persons and a paid-up capital of Birr 100,000, not exceeding Birr 1.5 million (Mamo A., 2019). In Ethiopia ,the definition of medium enterprise contractors is similar ,with the ministry of industry defining them as enterprises with fewer than 100 employees and annual turnover of less than Birr 50 million (MOI,2020).

2.3.2 MSMEs sector in Ethiopia

Ethiopia has made the development of MSMEs a top priority in order to create jobs, growth, and establish an industrial sector.In order to achieve this, the government created a national MSEs development and promotion strategy in 2005, which helps foster the sector's expansion and growth. The principal aim of the strategy framework was to establish a favorable atmosphere for micro, small, and medium-sized companies (MSEs) to enable MSEs to foster economic expansion, generate sustainable employment opportunities,

enhance collaboration among MSEs, and serve as the foundation for medium- and large-scale businesses. The government gave priority to businesses with traits like manufacturing and self-employment, especially by young people who are unemployed and disabled, in this plan framework (Berihu et al., 2014).

In accordance with MSEs development strategy (2005), the council of ministers regulation Number 33/1998 established the Federal Micro and Small Enterprises Development Agency (FEMSEDA) to spearhead and invigorate Ethiopia's MSEs development. The Ministry of Urban Development and Construction is in charge of the agency, which was founded as an independent government organization. The agency's main objective is to put the aforementioned strategies into practice. Regional Micro and Small Enterprise Development Agencies (REMSEDAs) have been established to carry out the MSE policies and plans (Mamo A., 2019).

Due to their benefits in terms of size, location, capital investment, and employment potential, MSEs have become the primary emphasis in the majority of emerging nations. In Ethiopia, during the 1940s and 1950s, government policies were implemented to establish the fundamental administrative and institutional framework of the state. The aim was to consolidate the progress made by reforms that accelerated the industrialization process (MUDC, 2013). To improve the functioning of MSEs, the Federal and Regional MSEs Strategy in 2005 and the licensing and supervision of microfinance institutions proclamation in 2004 were implemented. Additionally, the primary goals of federal and regional MSE development agencies were to use local raw materials, create jobs, adopt new and appropriate technology, and improve MSEs development (MUDC, 2013). MSEs developments has also been prioritized in the growth and transformation plan (2010 – 2015), which lists them as one of the nation's seven growth pillars (MoFED, 2011).

Ethiopia's Industrial Development Strategy (IDS) drafted in 2002, it is based on ideas that would eventually lead to the growth of labour-intensive sectors, of which the development of MSEs makes up a significant portion. Manufacturing related businesses would be the ones driving this entire process. In particular, the government intends to prioritize providing multiphase support to the MSE sector. The GTP also makes this very evident. The main goal is to create jobs in order to alleviate poverty in metropolitan areas; however, MSEs also

serve as a place where entrepreneurs are able to thrive and lay the groundwork for industrial growth (Mamo A., 2019).

2.3.3 The case of the building sector in general

There are numerous sectors within the building construction industry. These sectors include self-building, civil engineering, professional services, and residential development. There are many different kinds and sizes of firms in the construction industry. These are involved in the various submarkets that make up the construction sector. In Ethiopia, building contractors are required to hold a license and be registered before beginning any kind of construction work. The Ministry of Work and Urban Development classified the firms based on factors like size, experience, and financial strength. Architects, civil engineers, electrical engineers, sanitary engineers, quantity surveyors, and surveyors who supplied the design skills are all included in the professional services sector (Mamo A., 2019).

2.3.4 The roles and characteristics of MSMEs

According to Abraham A.A (2020), Nigerian MSMEs have the following characteristics: As follows; labour-intensive processes of development, leadership focused on important individuals, short-term financial access restrictions, high funding costs as a result of high interest rates offered by banks ,high mortality rates, dependency on imported raw materials, weak inter- and intra-sectorial links, poor management skills, inadequate product output monitoring, lack of research and development, lack of succession schedule, inadequate preparation and growth for workers, weak reporting policies, low entrepreneurial expertise, poor financial records and poor management of financial resources.

Chen etal. (2019) suggested that MSMEs are the real potential engines of wealth creation, value reorientation, job creation and poverty eradication in developing countries of Africa. There are sound economic and social reasons for promoting MSMEs (Mosisa A., 2013). First, MSMEs are commonly linked to labor-intensive production, leading to their perception as having a high labor-absorptive capacity. Second, from the economic point of view, the following goals for building construction are thought to be achievable by optimizing the contribution of micro firms to employment and economic development; Increasing the number of micro enterprises that are starting out and have the capacity to

develop, as well as their contribution to investment, employment, and income generation, increasing the percentage of economic ownership and the rate at which microenterprises transition into larger categories enhancing the efficiency of currently operating microenterprises to improve their competitiveness and lowering the unfavorable microenterprises mortality rate.

Endalkachew (2008), citing CSA (2003) in his research stated that MSMEs are a special focus of the government, given that they here, the potential for MSMEs to create value, attract investments, and advance the country's economy is rarely mentioned. The government wrote its first Micro and Small Enterprise Development Strategy in acknowledgment of the critical role MSMEs play in generating revenue, opening doors to employment, and lowering poverty. It is challenging for new entrants to maintain a sustainable workflow because of the high volume of small contractors entering the lower end of the market and the intense competition in this industry. Their incapacity to maintain workflow has an effect on their capacity to obtain long-term jobs and financial empowerment. The long-term real reduction in demand has made small and medium-sized contractors more competitive, and many have responded by cutting labor. Larger contractors are entering the international market, while small local contractors face market forces due to geographic distribution and peak workloads. Emerging contractors face similar market forces, but small government contracts have been used as job creation opportunities, comprise the largest share of total enterprises and employment in the non-agricultural sectors (Mosissa A., 2013).

Endalkachew (2008) cites the first Micro and Small Enterprise Development Strategy in 1997. He describes micro enterprises as business enterprises having a paid-up capital of less than 20,000 birr, excluding high tech consulting firms and other technical institutions. Small businesses are defined as those that have paid up capital of at least 20,000 birr but not more than 500,000 birr, excluding technology establishments and high-tech consulting organizations. By definition, large and medium-sized enterprises have paid-up capital of more than 500,000 birr. In Ethiopia, there are around 570,000 MSEs, of which 99.40 % are micro-enterprises with fewer than ten employees, making up 88.2% of private sector employment, according to a 2003 survey by the Central Statistical Authority (CSA). The

micro enterprises are very small. Generally speaking, they have an average of 1.5 employees (including the owner and perhaps one part-time assistant) and generate 1,300 birr in operational surplus annually. There are now 82 % urban enterprises run by sole proprietors. Within these urban micro-enterprises, family members employed 60% current workers out of all those employed (Mosissa A., 2013).

Aside from family members, apprentices made up a significant part of the remaining MSMEs workforce (CSA, 2003). The typical microenterprise has a capital of 3,528 birr, a yearly production value of 2,300 birr, and an annual surplus of 1,300 birr. Despite being substantially more productive and profitable than micro-enterprises, small-scale enterprises are also extremely small, with an average of slightly more than three employees, an annual operating surplus of 18,934 birr, capital of 38,554 birr, and a production value of 68,800 birr. The MSMEs sector's influence on individuals, households and national economies is clear and profound. These contractors play a significant and critically important socio-economic role in developing countries. It is therefore important that MSMEs contractors be well equipped to Challengesively manage their construction enterprises from the perspective of the environment, health and safety, as well as from business sustainability, which contributes to the socio-economic development of local communities and society at large (Mosissa A., 2013).

Generally, MSMEs play a crucial role in the construction industry, providing a range of services and products that include: building materials supplies, construction equipment and machinery, architectural and engineering services, construction management and consulting services, and general contracting and subcontracting services. In addition, MSMEs also contribute to the industry's innovation and technological development, as they are often at the forefront of new technologies and techniques (Kagerman, 2013).

2.3.5 MSMEs development

MSMEs have become Ethiopia's primary priority area in recent years due to their high levels of employment generation, size, location, capital investment, and capability. According to MUDC (2013), there was a government policy in place to establish the institutional and administrative framework of the state in the 1940s and 1950s in order to consolidate the reforms that were executed to hasten Ethiopian's industrialization process. As a result, a

number of changes to the MSMEs growth process had considered; one such change is the establishment of Business Enterprise Registration Proclamation No. 184/1961. During the 1970s, Ethiopia's Ministry of Commerce and Industry implemented various measures to support MSMEs development, including temporary and permanent licenses, tax breaks, and access to public utilities. However, the socialist regime introduced excessive government interventions, bureaucratic red tape, and costly administrative requirements, leading to the privatization of the private sector. In 1977, the Handicrafts and Small Scale Industries Development Agency (HASIDA) was established to improve the public economy by encouraging cooperative development in the small-scale sector. Following the fall of the Dergue regime, the Ethiopian People's Revolutionary Democratic Front (EPRDF) ushered in reforms to the public sector as well as the growth of the private and market economies. To improve MSMEs operations, the Federal and Regional MSMEs Strategy was adopted in 1997, and microfinance institutions were needed to be licensed and supervised starting in 1996. In addition, the primary goals of Federal and Regional MSMEs development agencies were to adopt new and suitable technologies, employ local raw materials, create jobs, and promote the growth of MSMEs (MUDC, 2013).

Moreover, the second Growth and Transformation Plan prioritized the development of MSMEs and listed them as one of the nation's seven growth pillars (MoFED, 2011). The previous proclamation permitted small-scale business establishments by business organizations, cooperatives, and individual entrepreneurs, replaced the restrictive Proclamation No. 76/1975, allowed participation by the diaspora, and raised the capital ceiling for small-scale enterprises from birr 500,000 to four million birr. Declaration No. 17/1990 removed the cap on private sector participation at one license and permitted people to make an unlimited number of investments. The number of businesses that made the switch to mixed-economy development was transient for a number of reasons. The cap on private sector participation at one license was lifted by declaration No. 17/1990, allowing individuals to make an infinite number of investments (Arega A., 2016). The argument that these small private enterprise contractors could solve the inefficiencies of the large state-owned organizations and improve wealth distribution, job creation, cost efficiency, competitiveness, and unemployment with the limited financial resources available has recently increased interest in private sector involvement in Ethiopia (Arega A., 2016).

2.3.6 Sector core constraint of Micro, Small, and Medium enterprises

According to Lusaka (2014), MSMEs are subject to the following fundamental constraints; lack of consistent public contracts awarded to domestic MSMEs, operate with a low profit margins, inconsistent payment from client to contractor, lack of specialized domestic labor force, poor employee and employer awareness of the practices, inappropriate or insufficient equipment/ machinery, low employee participation in social protection programs, and business environment not conducive to growth.

2.3.7 Benefits of Micro, Small, and Medium enterprise contractors

It is easy to see how small enterprises advantage any society. They create a pool of skilled, semi-skilled, and unskilled workers that will serve as the foundation for future manufacturing growth; they contribute to the economy by producing goods and services; they create jobs at moderately low prices; and they provide a means of reducing income disparities.

Abraham A.A. (2020) remarked that the following advantages of MSMEs;

Development of personal relationships: Small businesses are dedicated to cultivating personal relationships with suppliers, employees, and clients. One can focus on one-on-one customer service in a small company, where effort is crucial in preserving cordial relationships.

Creativity and Innovation: Small businesses are in a good position to expand and explore new concepts. This is due to the fact that their owners are exempt from reporting issues or requiring consent from outside parties.

Low overhead: Because their services are less scope, small businesses have lower overhead expenses. They work in small sized, low-cost heating and lighting facilities with very little rent and rates to pay. For customers, low costs result in lower prices.

Engine for economic development: It is unquestionable that MSMEs are Nigeria's primary engine for economic growth and development. They also provide a vital channel for promoting the private sector, collaboration, and productivity.

Poverty reduction: MSMEs are essential to the fight against poverty and economic disparity in societies. It also encompasses unskilled, semi-skilled, and skilled employees.

Promote growth: Similarly, by their definition, small-scale enterprises are such that they participate in primary and secondary economic activities that are heavily dependent on locally sourced materials. As such, they achieve high-value-added Operations that are a key part of any economy's growth and development.

2.4 Empirical Literature Review

2.4.1 Evaluation of MSMEs work on building construction projects

There are many performance indicators that can be used to measure and assess project performance. These indicators can be related to various dimensions (groups), including time, cost, quality, client satisfaction, client changes, business performance, health, and safety. However, in the construction sector, time, cost, and quality are the three most common metrics used for performance evaluation, also referred to as the "iron triangle. Project duration, financial cost, and quality are the primary indicators of success. In actuality, it is exceedingly difficult to evaluate the success or failure of building project. Designers, contractors, consultants, construction managers, specialists, subcontractors, and other professionals participate in multidisciplinary modern construction projects, even those of modest size. Even within a particular project, the goals of each participant do not always have to match (Mamo A., 2019).

2.4.1.1 Quality performance of projects

Project quality is defined by quality professionals using a variety of definitions. The simplest definition of quality is "meeting the customer's expectations" or "compliance with customer's specification". Researchers and policy makers have realized that economic development and poverty alleviation depend on both the quantity and quality of jobs (ILO, 2014d). The quality of work in a construction project relates to the terms of the agreement and the requirements given in the contract documents as a whole throughout the project's execution. Quality of work accomplished in two different areas. The first involves measuring and testing building materials that make up a component of the finished product in situ or in a materials laboratory against a standard measurement or specification. These materials must meet the requirements outlined in the contract documents in order to be used in the construction process (PM Book, 2013).

a) Total quality management

A management concept called total quality management (TQM) aims to enhance project performance and produce better products and services as an outcome. Leadership, commitment, customer satisfaction, continuous improvement, participation, guidance, ownership, recognition, error prevention, collaboration, and teamwork are among its main points of emphasis. Developing an incremental implementation strategy, creating a quality-focused community, creating a common objective, designing procedural procedures, and having top management grasp the philosophy are all essential components of a successful TQM implementation. TQM benefits construction projects with better information systems, fewer delays and costs, and better products (Mamo A., 2019).

2.4.1.2 Time and cost performance of projects

Setting up a business primarily aims to create value and make a profit, which often requires project financial and time control. Proper control can prevent financial leaks and ensure efficient procurement processes. Cost management is crucial throughout the life cycle of developments, achieving value for money and providing more houses. In a rapidly changing environment, four main pressures make it more difficult and important to control construction costs: delivery time, complex client requirements, increased involvement of various organizations, and current design practices using new ideas, techniques, materials, and components (Mamo A., 2019).

a) Major factors affecting time and cost performances of projects

Understanding contributing factors is the first and most crucial step towards improving time and cost performance. Issues with design and documentation are prevalent in the construction industry and have a significant effect on how effectively projects work in terms of schedule and budget. It is usual practice to make frequent design modifications, which is one of the main barriers to project success. Financial resource management identified as the second important component. A delay in the owner's payment for finished work has a substantial impact on the contractor's cash flow and delays the acquisition of resources, which can affect the project's schedule and expense performance. The administration of contracts and project management has a significant impact on the performance of costs and

schedules. Changes and reworks in construction projects are caused by modifications and insufficient site investigation during the design phase (Abdulazis et al., 2012).

b) Time and cost overrun of projects

Time overrun refers to late completion of works compared to the planned schedule, caused by any party to the contract. Cost overrun is the difference between actual project costs and cost limits, where the client's maximum expenditure is exceeded. These issues are common in the construction industry, particularly in developing countries. Factors affecting these overruns vary depending on the project's nature, and it is crucial to identify the source of these factors to determine their severityy (Lekan et al., 2017).

Time overruns cause further cost overruns because, as a project's duration increases, material prices rise and result in additional costs for the project owner, contractor, and consultant, all of whom work on the project until it is completed. Further, the contractor will pay more. Key stakeholders and the construction sector are impacted by cost overruns. Increased expenses for clients result to less return on investment. Due to risks and idle resources, the industry is facing project abandonment, diminished operations, a poor reputation, and problems procuring financing. Contractors also lose money and face defamation (Merid, 2016).

2.4.2 Role of MSMEs contractors on building construction projects

MSES are essential to Ethiopia's sustained future economic progress. Ethiopia is known for its achievements in the construction industry, but legislation and other policies that encourage and enable start-ups and microenterprises to grow into medium-sized enterprises can yet be implemented by the government. Due to the labor-intensive nature of their activity, MSEs significantly contribute to the creation of jobs and the expansion of the industrial network in rural areas. MSEs have been a good way to create jobs, and they may create even more if the industry receives assistance in the form of new funding, technology, and creative marketing strategies (Mekonnen, 2013).

Additionally, MSEs have made a significant contribution to the economic growth of different countries. SMEs serve as growth engines that significantly increase a country's GDP, create jobs, increase industrial output, reduce poverty, promote exports, and help the

country become self-sufficient. For example, in Japan, SMEs employ 80 percent of the nation's industrial workforce, but in Germany and the United States of America, MSEs employ 50 percent and 46 percent of the workforce, respectively. MSEs make up over 95 percent of the manufacturing sector in countries like Mali, Indonesia, and India, and they have emerged as a potent economic engine in terms of job creation, industrial production, and export promotion. MSEs are the primary source of entrepreneurship and businesses, as well as a source of human capital, creativity, and technological development, as well as raw materials for larger companies (Hassan et al., 2016).

2.4.2.1 Economic growth

MSMEs contribute to economic growth of the country by generating revenue and stimulating economic activity .In the building construction industry, they contribute to the economy by providing services and products that support the construction of building, roads and other infrastructure (Chen et al., 2019). With the exception of buildings, civil engineering creates built environment structures for communities and communication networks. While streets, electrical networks, and green spaces are examples of other structures, communities provide fundamental services like water supply and sewage. Roads, railroads and telecommunications networks link communities (Mamo A., 2019).

2.4.2.2 Local content promotion

MSMEs promote local content by using locally–sourced materials and labor. The building construction industry, these enterprises can promote local content by using local materials ,such as brick, sand, timber ,and hiring local workers which support the local economy (Kuratko,2019). A building is carefully planned assembly of many structural and non-structural elements. The structural and non-structural components used in building construction are produced by MSES operating in the construction sector. They contribute to the building construction sector by creating several building components, such as hollow concrete blocks, gypsum board, precast beams, agro-stone products, and metal and wood work products (AAHDPO, 2017).

Figure 2.1 Local content products of MSMEs contractors (Mamo A., 2019)

2.4.2.3 Innovation

MSMEs are known for their innovation and able to adapt to changing market conditions .in building construction sector, these enterprise introduce new technology, materials, and construction methods that enhance efficiency, quality, and sustainability (Mwangi et al., 2019). The development of new technology in the construction sector is anticipated to change how construction is carried out going forward. Any innovative approach is likely to result in changes to the workforce's composition. Establishing new or redesigned training programs may be necessary as a result of new building technologies, which may call for the acquisition of new skills. All of these effects are expected to require new training approaches or related worker up skill (CTF, 2014).

Construction technologists introduced new technologies to reduce workplace health and safety risks, reduce labor requirements, and improve efficiency. These technologies also reduce on-site construction time, increase quality control, and reduce waste. Off-site manufactured products also save on-site construction time and allow for controlled manufacturing environments, avoiding downtime and weather conditions. These factors contribute to the growth of the construction industry (Mamo A., 2019).

2.4.2.4 Job creation

MSMEs create jobs for skilled and unskilled workers, contributing to the alleviation of unemployment in the country. In this industry, MSMEs create jobs for carpenters, electricians, plumbers, and other artisans, among others (Kuratko, 2019).

Employee education and training have a significant impact on a company's ability to innovate and grow. Employee adoption of new production practices, standards, and technology is necessary for the introduction of new products or services. Thus, the process of internal reorganization and technological adaptations is facilitated by employees' high absorptive capacity and fundamental educational attainments (Caroline, 2015).

But, the majority of workers in MSEs have lack formal education or vocational training, so they have learned most of their duties "on the job" (WB, 2013). This means that most workers in MSEs are unskilled. Nigeria's small-scale businesses have experienced significant technical progress since their inception. These intellectually-driven enterprises continuously research and strengthen existing technologies. Companies acquire or enhance domestic technology in various industries, focusing on quality improvement rather than just production technology. This highlights the importance of developing indigenous technology in the economy (Abraham A.A., 2020).

Skilled labour is in high demand in the construction sector, as skilled labour is a necessary component of many projects. However, low development and productivity may be hindered by unskilled workers, low wages, and unfavourable working area. Higher wages, better working conditions, job training and management initiatives are examples of incentives that can increase employment and productivity. When it comes to complete building projects on time with high quality, highly skilled artisans are essential (Mamo A., 2019).

2.4.2.5 Cost-effectiveness

MSMEs are cost effective and can complete projects at lower costs compared to larger contractors .In the building construction industry, MSMEs can offer competitive prices and materials, making housing and infrastructure projects more affordable for consumers (Muriithi et al., 2019.)

2.4.2.6 Enhance productivity

A common definition of productivity is the ratio of input volume to output volume. In other words, it assesses the degree to which an economy uses labor and capital as production inputs to generate a specific level of output. Since productivity is seen as a major driver of economic growth and competitiveness, it serves as the key statistical data for many cross-national comparisons and evaluations of national performance (Mamo A., 2019). Fighting poverty and increasing living standards require the pursuit of productivity improvements. It is evident from examining the primary factors influencing productivity at the national level that businesses improving their core competencies are the most significant factor. With an emphasis on the cause-and-effect relationship between working conditions and MSEs productivity, ILC (2015) states that the following strategies can boost productivity: The impact of contemporary management techniques on business productivity, as well as how they improve working conditions, wage arrangements, training opportunities, and work schedule scheduling.

2.4.3 Challenges faced by Micro, Small and Medium Contractors

Small and medium-sized contractors face distinct challenges, characterized by the fact that they are usually unregistered, operate in the informal sector of the economy, and have minimal formal business procedures. The small-scale enterprise accounts for the biggest share of overall contractors, despite employing very few permanent employees, typically less than 10 workers. The conditions in developing countries present additional challenges, including, among other things, a lack of resources for training contractors, such as funds, poor construction procurement systems, and a lack of management capacity and resources to equip managers to run their businesses efficiently (Arega, 2016). Some of the major challenges faced by these enterprises include; lack of adequate credit and capital, poor and inadequate infrastructural accessibility, inadequate access and marketing linkages, and

inadequate application of new technology, lack of skilled human resources, regulation and policy factors, multiple taxation and poor adaptability to emerging international trends. This calls for the need for strategic intervention to improve coordination and linkages between various stake-holders including the government, industries and other agencies working in this field (Arega A., 2016).

2.4.3.1 Technical problems

i. Lack of Access to New Technology:

There is a great deal of variation between Ethiopia's MSEs. While the bulk of businesses use antiquated technology, only a small fraction of businesses operate on a technological basis. Despite their hard work, the majority of MSEs members are not as productive as they may be because they employ outdated production equipment. Technology encompasses not only the tangible equipment, such as installations and infrastructure, but also the expertise, methods, and understanding that surround its usage and implementation.

According to Mamo A. (2019), these are components of a larger technical "regime" or infrastructure that fosters innovation and the capacity of one technology to build upon or connect with another. Most of the industries today require application of advanced technology in their operations whereas in the Indian context continuance of low technology base results in low productivity by making these enterprises uncompetitive in the ever-widening market contexts. Apart from enhancing productivity and quality, new technology should be adopted for an overall transformation and competitive edge.

ii. Lack of Skilled Human Resources:

Although Ethiopia has a surplus of human resources, the majority are low-skilled laborers. Businesses will be impacted in terms of productivity, speed, quality, and other aspects. They will also have challenges with labor costs as a result of a lack of skilled personnel. A consistent underinvestment in human capital is a defining feature of developing nations. Because of this, there is an uneven distribution of craft skills, career prospects, and work environments in the labor market. Encounter the failure to produce high quality work is a result of a lack of technical expertise, experience, and qualified staff. Low technical and administrative skill levels among contractors are a significant issue facing the construction

sector, mostly in developing nations, according to Ofori (2009). Another major issue facing MSMEs in our country is the lack of reasonably priced availability of skilled labour and better managerial and entrepreneurial knowledge in the vicinity of their operations. Lack of managerial competence, absence of proper training on resource planning and capital management and so on, hinders the growth of enterprises (Mamo A., 2019).

2.4.3.2 Financial problems

i. Inadequate Access and Marketing Linkages:

Poor marketing linkages characterized by inadequate government support and patronage, lack of adequate marketing infrastructure/ network facilities continue to be a greater challenge for marketing and sale of MSME products. In a non-cluster situation, these enterprises get segregated and unable to ensure reduction in procurement cost from big companies and fail to streamline the output -supply chain. Due to MSEs tardiness in paying their debts, their items are either unsalable or sold at a loss. The majority of the government has established connections that ensure holidays and festivals are only temporary jobs. Additionally, the development of MSEs is hampered by the lack of comprehensive support packages, their poor implementation, and limited access to market information. The majority of market supply regulations are dependent on the government and do not allow MSE to operate independently. The majority of MSEs are incompetent in the goods and services they produce (Gebreyohannes, 2015).

ii. Tendering Procedures.

An efficient record-keeping system for all of their correspondences, together with compliance with legal and professional regulations, is essential for small and medium-sized contractors to expand their business through tendering. Contractor log books are professional records used to transmit technical details of previous contract works completed during tendering sessions and to inspect ethical standards; therefore, this goes above and beyond what is expected of regular company businesses. Performance would be extremely doubtful if a contractor could not provide a proper record of all previous projects completed and clearance certificates, since there would be no foundation on which to assess their capacity to handle a higher tender price (Fredirickndaire K., 2012).

iii. Access to Capital

The reasons for small contractors' relative failure are as follows: insufficient funding and credit from suppliers; inability to hire skilled labor; poor pricing, tendering, and contract documentation skills; inadequate mentoring; acting as a front for larger, more established contractors; lack of entrepreneurial spirit; improper training; lack of resources for large-scale or complex construction projects; lack of technical, financial, contractual, and managerial skills; and late payment for completed work(Mamo A.,2019).

K. Vasanth, Majumdar M., and K. Krishna (2012) stated in their paper that as several successful models of sustainable SMEs evolve, including networks of SMEs, they will become essential for addressing the systemic problems underlying the industrial ecology, enterprise resilience, and global supply chain sustainability.

Export-Import Bank of India, (2012) has critically analyzed the present situation of MSMEs and support systems available in India as well as in the global context. It has suggested that MSMEs in India should have access to alternative sources of capital like angel funds, and that existing laws should competitively address issues like insolvencies; need to redefine the ceiling limits to encourage MSMEs to move up the value chain and need for cluster development approach to increase the level of competitiveness. Srinivas KT (2013) investigated the performance of micro, small, and medium-sized firms (MSMEs) and their contribution to India's economic growth, concluding that MSMEs play an important role in India's inclusive economic growth.

2.4.3.3 Poor and Inadequate Infrastructural Facilities:

Small enterprise performance is adversely affected by inadequate infrastructure, including inadequate transportation, water, and power supplies. For higher productivity and revenues in Asia, infrastructure quality is critical. Business owners are unable to invest in high-voltage power lines or other supplementary services because of uncertainty around infrastructure services. Deficiencies in the infrastructure and poor support facilities marked by inadequate access to basic facilities like water, power supply, building construction adversely affect this sector and contribute to enhance their operational cost by rendering the MSMEs less competitive in the challenging market situations (Mamo A., 2019).

2.4.3.4 Regulation and policy factors:

MSMEs growth and expansion in Africa face several challenges, including discriminatory policies, centralized administration, and misguided notions of industrialization. Factor availability and cost are common constraints faced by MSMEs, and red tape and an injurious regulatory business climate are another impediment. In Ethiopia, policy formulation and strategic development are controlled by central authorities, preventing MSMEs owners from participating in the sector. This lack of participation in policy design and intervention hinders the sector's growth and expansion. Policymakers should involve MSMEs and support institutions in policy design and intervention to understand the sector's problems and develop appropriate policies, strategies, and incentive schemes. The registration and licensing process, government official involvement, and a supportive environment are also crucial for MSMEs growth and expansion (Arega A., 2016).

2.4.3.5 Management Skills

The sustainability of Nigerian SMEs is also seriously hampered by a lack of skilled men and management expertise. More than 90 percent of these business shortcomings can be attributed to insufficient skills and knowledge. The majority of small and medium-sized enterprises are also distinguished by poor record-keeping and ineffective internal administration. Misappropriation of funds has frequently resulted from technological issues, incompetence, and a lack of required experience in the production, procurement, servicing, marketing, and finance sectors (Abraham A.A., 2020).

2.4.3.6 Multiple taxation

The involvement of tax consultants and agents employed by local governments has made this a serious issue. They frequently provide services that are imprecise, overestimated, and interfere with the manufacturing process. In an effort to get more money, they fee every individual, but they don't take into account how this would affect employment and household income in general (Abraham A.A., 2020).

2.4.4 Strategies for enhancing the role of MSMEs contractors

To enhance the contributions of MSMEs contractors in building construction projects ,several strategies have been identified .these includes targeted capacity building programs

to improve technical and managerial skills, access to mentorship and business support services ,streamlined procurement process to ensure fair competition, and polices promoting collaboration between MSMEs and larger construction firms.

2.4.4.1 Financial support and assistance

Government agencies, financial institutions, and industry associations can provide financial support and assistance to MSMEs contractors, including access to financing, grants, and subsides (Kuratko, 2019). This can help them overcome financial constraints and invest in modern technology, equipment, and human resources. He suggested the following strategies: facilitate access to funding and financial support programs specifically designed for MSMEs contractors in the construction sector. This can include initiates such as low interest loans, grants or venture capital funds, promote financial literacy and business planning workshops to help MSMEs better understand and manage their finances, and encourage collaboration between MSMEs and financial institutions to develop tailored financial products that address the specific needs of the construction industry.

2.4.4.2 Skills development and capacity building

Mwangi et al. (2019) suggested the following alternative solutions; support training and skills development programs that focus on the specific needs of MSMEs in the construction sector. This can include technical skills training, project management courses, and workshops on business administration and entrepreneurship, facilitate partnerships between MSMEs and larger contractors or industry associations to provide mentorship, apprenticeship programs, and knowledge transfer opportunities, and promote the use of technology and digital tools to enhance productivity and efficiency with in MSMEs. Industry associations, training institutions, and government agencies can provide training and development programs for MSMEs contractors, including technical skills, project management, and business management.

Training and development are critical for the success of MSMEs, and governments can play a key role in providing these programs. This can help them improve their skills and knowledge, adapt to changing market conditions, and comply with regulatory requirements (ILO, 2020).

2.4.4.3 Regulatory Support

Government agencies can provide regulatory requirements, reduced bureaucracy and streamed licensing processes (Mwangi, 2019). He recommended the following strategies; advocate for simplified and streamlined regulatory frameworks that minimize administrative burdens for MSMEs, provide guidance and assistance to MSMEs in navigating regulatory requirements related to licensing, permits, and safety standards, and foster collaboration between government agencies, industry associations, and MSMEs to address regulatory challenges and propose policy reforms. This can help them comply with regulatory requirements and focus on their core business activities.

2.4.4.4 Support marketing and branding

Government can provide support for marketing and branding initiatives such as develop platforms or databases that connect MSMEs with potential clients and projects in construction industry, encourage public and private sector organizations to implement preferential procurement policies that prioritize MSMEs participation in construction projects, and support marketing and branding initiatives for MSMEs to enhance their visibility and competitiveness in the market. Marketing and branding are critical for the success of MSMEs and government can play a key role in supporting these initiatives (Kuratko, 2019).

2.4.4.5 Streamline procurement and tendering

Kuratko (2019) suggested the following alternative solutions; advocate for simplified and transparent procurement procedures, ensuring that MSMEs have equal opportunities to participate in the bidding process, provide guidance and support to MSMEs in understanding and complying with procurement regulations, including assistance in preparing tender documents and contracts, and promote subcontracting opportunities for MSMEs within larger construction projects, allowing them to gain the advantages.

2.4.4.6 Foster Innovation

Innovation is critical for the growth and success of MSMEs. Government can foster innovation by providing funding for research and development, establishing innovation hubs, and creating an enabling environment for the adoption of new technologies.

Innovation is a key driver of economic growth, and governments can play a key role in fostering it (MIT, 2020).

Generally, to improve the roles of Small and Medium-sized Enterprises (SMEs) in construction projects, several strategies have been identified. These include financial support, skills development, regulatory support, marketing and branding, streamlined procurement and tendering, and fostering innovation. Financial support can be provided by government agencies, financial institutions, and industry associations, such as low interest loans, grants, and venture capital funds. Skills development programs can be supported by training and capacity building programs, partnerships with larger contractors, and the use of technology. Regulatory support can be provided by government agencies, promoting simplified frameworks, guidance, and collaboration to navigate regulatory requirements. Marketing and branding initiatives can be supported by government through platforms connecting SMEs with potential clients and projects, and promoting preferential procurement policies. Streamlined procurement and tendering can be achieved by promoting transparent procedures, providing guidance, and promoting subcontracting opportunities. Finally, fostering innovation is crucial for the growth and success of SMEs, and governments can play a key role in fostering it by providing funding for research and development, establishing innovation hubs, and creating an enabling environment for new technologies.

2.4.5 Success factors for the Survival of MSMEs

It is now widely acknowledged by policymakers at the local, regional, and national levels in both developed and developing nations that Micro, Small, and Medium-sized Enterprises (MSMEs) play a better role in employment, wealth creation, and innovation development. Evidence suggests that the impact of SMEs is greater in developing countries than in industrialized nations. Small and medium-sized enterprises (SMEs) in developing nations used to eliminate poverty by contributing to both the creation and distribution of income. While SMEs generate a disproportionately high number of workers with low incomes, large enterprises often generate a small number of high salary earners (Mamo A., 2019). Especially those that operate in the construction sector are an important contributor to the economy and are considered a driver for reducing unemployment in South Africa as

defined by the national credit regulation Act; given that the formal sector continues to shed jobs when business transaction are not favorable (Aigbavboa and Thwala, 2014).

The role that SMEs play in the nation's general development and the construction industry is hard to overstate. Gainful and meaningful employment for all individuals who are competent and willing to work is largely dependent on the performance and expansion of small and medium-sized firms (SMEs), which also serve as important indicators of the degree of industrialization, modernization, and urbanization. A significant body of research has been done in this area regarding the perceived important success criteria that small and medium-sized enterprises (SMEs) contractor must understand in order to ensure the survival, growth, and expansion of their businesses into larger ones within the industry. SMEs must understand important issues in order to maintain their dominant position in the market (Clinton et al., 2015).

According to Wellington et al. (2015), in Malaysia, the top ten elements that support the expansion of construction companies are: appropriate age and experience; competent management of the business; effective cash flow management; adequate knowledge and experience; competent team members and technical know-how; competent site management; favourable client relations; accessibility to money; availability of trained labour; and dedication to achieving customer happiness.

2.5 Summary of Research Gaps

As per the review of the literature most of the studies that have been conducted with the aim of identifying factors affecting MSMEs performance belonging to European Union countries. In the context of Ethiopia, a few related studies conducted in Addis Ababa. Moreover, scant work has been done with the objective of evaluating the role and challenges of MSMEs contractors on building construction projects that results from different studies in sub-Saharan Africa in general and Ethiopia in particular.

Fredrick N. K. (2012); the findings of this study make a contribution to the search for solutions to the problems facing the performance of SMEs in Embu County and provide insight for further research in this sector. There is limited understanding of the impact of project complexity on the evaluation of SMME contractor’s. Further research is required to

investigate how different levels of project complexity influence the evaluation outcomes and to develop effective evaluation methods that consider these complexities.

According to Ali, Ibrahim Faki (2014): The study recommends increased patronage and support to construction SMEs in order to achieve their full contribution towards sustainable development of Nigeria. The research make an in depth specific study on the contribution of construction SMEs towards sustainable development.

According to Asnake Mamo Beshah (2019): Findings revealed that production of cost efficient material, Saving Project cost, Construction period reduction, Reduce work schedule tightness are identified as major impacts of Micro and Small enterprises on condominium housing construction projects performance in Addis Ababa. In Ethiopian context the problem of Stake holders time, cost and quality performance can nearly be noticed in federal housing construction projects. This indicates that this problem didn't receive enough attention by both researchers and responsible authorities. Develop the current research by increasing the sample size and studying the area more in depth. Also collect the data from the selected project sites in depth. Another recommended area of further study is: A study on technical capacity of Micro and Small enterprises on condominium housing construction industry in Addis Ababa. A study that creates integrated system between stake holders in the industry and Micro and Small enterprises to make them more competent.

According to Tasisa A.(2014): the finding was held with operators regarding the challenge and opportunities the enterprises and operators are facing. The results indicate that, MSEs plays important role in community development by boosting community's capital. Some of the challenges are some operators who joined the formed group lately did not get any training and the balance of the focus of MESs higher officials in demanding MSEs for politics than community development and poor supportive supervision by MSEs offices are exhibited. Due to limited human, financial and material capital, the study was restricted to a limited number of individual operators who are participating in the informal sector activities during the survey period. In this research is a very limited participation of women in the MSEs compared to number of men in the study area.

According to Abera A. (2012): The findings further indicate that, there exists linear and positive significant ranging from substantial to strong relationship was found between

independent variables and dependent variable. Moreover, the selected independent variables may significantly explain the variations in the dependent variable at 1% level of significance. The researcher's view that future research could therefore investigate the other sectors like construction, urban agriculture, and retail and come up with specific findings which will potentially contribute a lot in the development of the country in general.

According to Mosissa A. (2013): the analysis result revealed that small, medium and micro enterprises (SMME's) seen as an essential input to the road network development and maintenance work of the road construction sector and are springboard for growth, job creation and social progress. In order to improve the overall performance road construction the Ethiopian Road Authority has been working significantly on the road network expansion. This thesis is therefore an attempt to address the contributions and effects of small, medium and Micro enterprise contractors directly or indirectly on such issues considering their challenges and constraints. There are needs for further research in addition to road construction projects. This will help identify the many effects and contributions of SMME contractors on infrastructure development, similar research will be conducted at all level to analyze all the contributions by SMME contractors in Ethiopia and their critical problems as well. In addition to that construction industry stakeholders were informed of the findings of this study in order for them to take an initiative to address these issues.

According to Gebrehewot M. and Shete M.(2019): The findings of the analysis showed that project cost management factors, project time management factors, project quality management factors, project scope management factors and project risk management factors positively and significantly affected performances of building construction projects. The researcher's view that future research could therefore investigate the other sectors like road construction, urban agriculture, comprehensive understanding and evaluation of the specific roles and challenges that MSMEs Contractors make in these projects and retail and come up with specific findings which would potentially contribute a lot in the development of the country.

Generally, the literature review was conducted using online resources, books on construction management, engineering publications, and earlier research. Information on the reasons behind time and cost performance as well as the effects of poor performance in the

construction sector has been noted by reviewing previous research. This would be utilized to create the questionnaire survey that would be used to acquire information from the intended respondent. The corporation faces a variety of performance-related issues while working on the building project, including issues with time management, finances, quality, human resource management, and so on. The consequences of time and cost performance affect not only the contractor but also the construction industry as a whole. These consequences include the contractor's reputation being damaged, the higher authorities' disapproval of the sector, discouragement of investment, project owners' dissatisfaction, increased expenses, heightened political pressure, and tense relationships amongst stakeholders.

In Ethiopian building construction projects, stakeholder concerns about schedule, cost, and quality performance are almost always evident. This suggests that researchers and relevant authorities did not give this issue enough attention. The performance of contractors is the primary focus of the scant study on project performance management conducted in Ethiopia. Because of this, the majority of stake holders have not met time and cost performance requirements. As a result, the performance of MSMEs has a big influence on the building construction projects. This thesis, which evaluates the role and challenges faced by Micro, Small, and Medium enterprise contractors on building construction projects, takes this into account. The research gap identified in the evaluation of roles of MSMES contractors on building construction projects is the lack of comprehensive understanding and evaluation of the specific roles that MSMEs Contractors make in these projects.

While there is literature available that discusses the roles of MSMEs contractors in the construction industry as a whole, there is a lack of in depth studies that focus specifically on their roles and challenges in building construction projects. This research gap hinders the ability of policy makers, project managers and industry stakeholders to effectively harness the potential of MSMES contractors and promote sustainable construction practices. Without a comprehensive evaluation of their contributions, it is challenging to determine their role in project delivery, quality management, cost-effectiveness, innovation, and employment generation.

By addressing this research gap, conducting a thorough evaluation of the roles and challenges of MSMES contractors in building construction projects, and filling the

knowledge gap of policy makers, project managers, and industry stakeholders can make informed decisions and implement effective strategies that leverage the roles of MSMEs contractors. This will lead to improved project outcomes and the promotion of sustainable construction practices.

2.6 Conceptual Frameworks

Muginda (2003) define a conceptual frame work is a diagrammatic presentation illustrating the relation between dependent variables. MSMEs contractors encounter several challenges and barriers influencing their operations. To align the conceptual frame work with the research objectives level of challenges faced by MSMEs contractors is dependent variables whereas financial problems, management problems ethical problems, infrastructural barriers, political, regulatory and policy related problems, and technological problems are all independent variables. The challenges of MSMEs contractors are shown in figure 2.1 below.

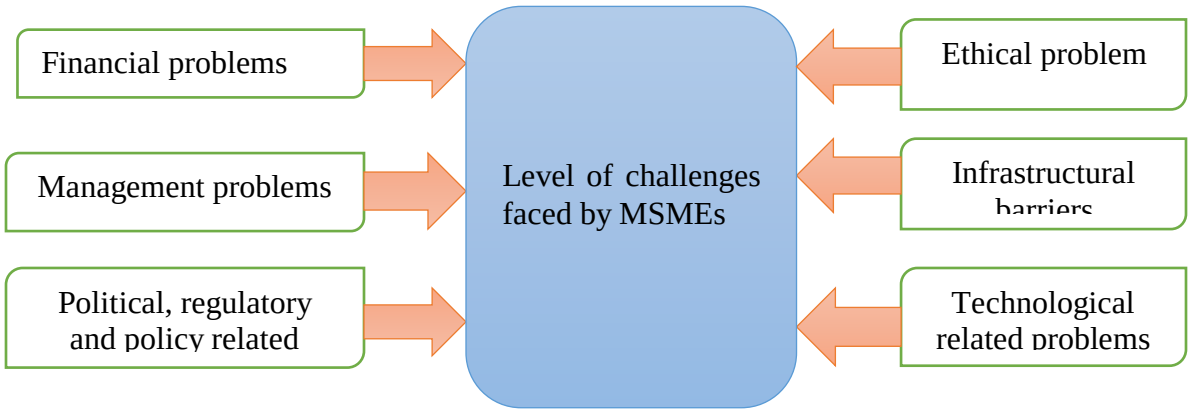

Figure 2.2 Conceptual Frameworks (own model)

In figure 2.1 clearly shows that this study focused on the current challenges faced by MSMEs contractors. MSMEs contractors that encounter a greater number of problems and barriers are unable to demonstrate contributions to building construction projects. The study helps fill the gap in understanding constraints specific to the building construction sector in the study area. In sights can guide development of targeted solutions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the methods utilized to accomplish the research objectives as well as the study design and methodology that have been applied to gather the data required to address the research questions. The research questions serve in detail, along with the study's approach, techniques, operationalization of variables and indicators, sampling techniques (including sample size and selection), research validity and reliability, data collection methods, and data analysis methods. Additionally, the section addresses a discussion of the profile of the study area.

3.2 Research design

In the research study, the philosophical stand taken was pragmatism. Pragmatism emphasized the practical consequences of actions and the importance of applying knowledge to real-world situations. By adopting a pragmatic approach, the research focused on identifying practical solutions to overcome the challenges faced by MSMEs in building construction projects in North Shewa zone. Pragmatism allowed for a flexible and problem-solving-oriented research approach, which aligned well with the goal of addressing the specific challenges faced by MSMEs contractors. This philosophical stand generates more applicable findings for policy makers and beneficiaries.

3.3 Research approach

The study was conducted using a mixed approach using quantitative data (formal survey) and qualitative data. Quantitative data is more suitable for highly structured research that may be statistically measured Bloomfield, J., & Fisher, M. J. (2019). A quantitative survey is the best choice when one is to use it for an investigation to describe the degree of relationship between the variables. The literature claims that quantitative data frequently helps to explain, evaluate, and comprehend the behavior or significance of certain phenomena. While the qualitative methods offered a deeper understanding of the underlying

factors contributing to the challenges and policies and strategies to enhance MSMEs contractors' role.

3.4 Research type

The types of research employed under this study were descriptive and explanatory research. The type of research in this study was descriptive research. Descriptive research aimed to describe the characteristics of a phenomenon or situation, in this case, the role and challenges of MSMEs contractors in building construction projects in North Shewa Zone. Through descriptive research, the study sought to provide a detailed and accurate portrayal of the role and challenges encountered in the construction industry. The major purpose of descriptive research is description of the state of affairs as it exists at present. This study describes and critically evaluates the role of MSMEs contractors on building construction projects. Second, the study employs explanatory in that the relationship between variables is correlated with an aim of rating level of challenges faced by MSMEs contractors.

3.5 Study Area

The study was conducted in the North Shewa Zone, Amhara region, Ethiopia, which is one of the administrative zones within the region. It is situated in the central part of the Amhara region and is known for its rich cultural and historical heritage. The approximate latitude and longitude of the location are 9.00° N and 39.50° E, respectively. Though it varies slightly throughout the zone, the approximate elevation usually lies between 1500 and 3000 meters above sea level (CSA, 2022). In addition to lowering the region's temperature, this greater mindset may have an effect on crop varieties and agricultural methods. It is located in the high land and temperate climate zones, which are regarded as optimal for both agriculture and human habitation.

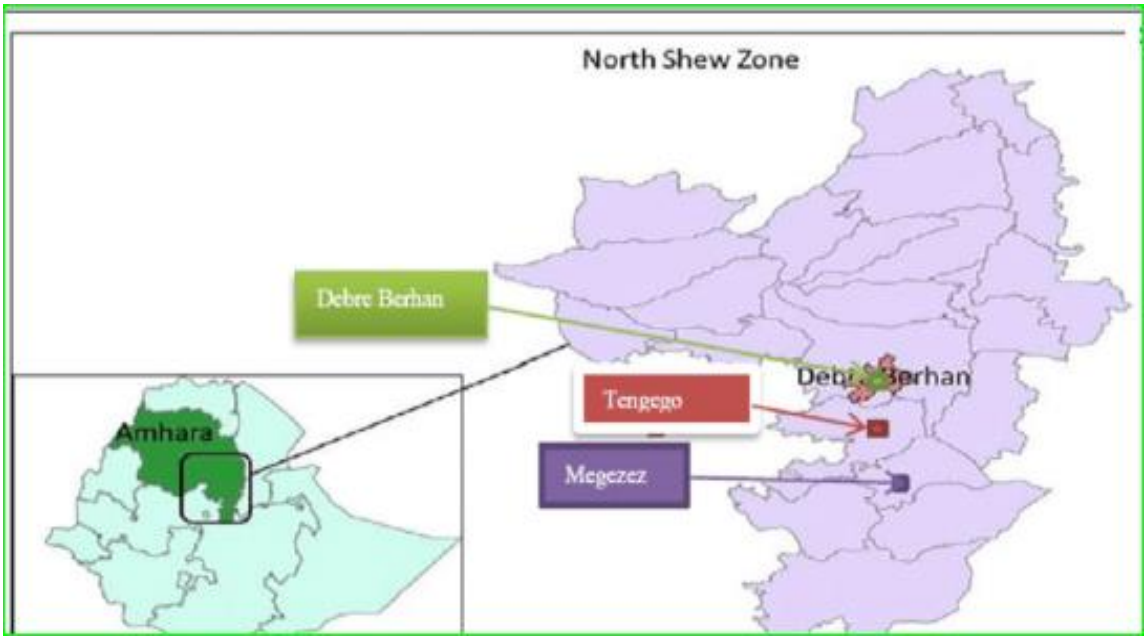

Figure 3.1 Map of North Shewa Zone and Debre Berhan (right), and Ethiopia (left), (Abebe et al., 2018).

3.6 Target Population

In North Shewa Zone, the overall population of micro, small, and medium-scale construction project enterprise contractors found on construction projects is twenty five (25) in number of senior group up to the current date (North Shewa Zone Bureau of Enterprise, 2024). The micro, small, and medium enterprise contractors and project stakeholders were the population under consideration in this study. In order to choose a sample from the entire population of contractors for micro, small, and medium enterprises, the researcher used a purposive sampling approach. This method aids in the selection of respondents who are directly related to the study's topic and who can offer their knowledge and experience. From 25 MSMEs contractors, 24 MSMEs contractors' representatives, clients, large contractors, private consultants, and government officials were selected and investigated for this study. Few potential reasons why I focused in North Shewa Zone; it may not have been feasible to conduct a large scale study across multiple regions due to constraints of time, resources and logistical challenges, studying multiple zones could have made the project too broad in scope, incase delimiting to North Shewa Zone allowed a more in-depth study and analysis within the given constraints, previous studies on MSMEs contractors in Ethiopia may have not extensively covered North Shewa Zone, creating a need for research in this area

specifically, and as a highly industrialized zone, the construction building sector in North Shewa Zone contributes significantly to the regional economy, hence provides an important case for study.

3.7 Sample technique and sample size determination

The purposive (non-probability) sampling technique may be used with both qualitative and quantitative research techniques and is most effective when one needs to study a certain cultural domain with experts within. According to Tongco, M. D. C. (2007), choosing the purposive sample is fundamental to the quality of data gathered; thus, the reliability and competence of the informant must be ensured. To get the right response from respondents, and increase the quality of data this research paper employs a purposive sampling method. The selection of respondents was guided by the availability of relevant expertise and firsthand experience in evaluating the roles and challenges of MSMEs contractors on building construction projects in the specified context. Using the sample size formula provided the minimum number of response to be provided. Having the purposive sampling technique, a project for the research was selected according to the following criteria: a finalized project handed over to the occupants and the other an active project. The sample size of the study is determined based on the following simplified formula proposed by (Yamen, 2013), by considering the above size of population. The formula states:

$$n = \frac{N}{1 + N\,(e2)}$$ ……equation 3.1

When, n is sample size,

N is the population size and

e is the level of precision.

A 95% confidence level and e = 0.05, is assumed for the purpose of determining sample size for this study. Accordingly, the sample size for the study is calculated as follows: As a total, there are 25 MSMEs contractors in North Shewa Zone. The current policy provided that if the construction work exists, they provide a new MSMEs contractor; due to this reason, the numbers of MSMEs contractors are reduced. N=25/1+25 (0.05^2) = 24, Therefore, the sample size of this study conducted purposively for 24 MSMEs contractors that are directly related

with the projects, including a key informant interview is conducted .Questionnaires distributed to 24 MSMEs contractor representatives, 10 client organizations, and 10 government officials linked with construction authorities and relevance to context include urban development and construction office employers, local government municipalities, and MSMEs offices in the study area; 5 private consultants linkages with MSMEs contractors in supporting them; and currently, there are no MSMEs consultants in the study area; and 5 larger construction contractors that outsource parts of projects to MSMEs contractors in the target zone. Therefore, a total of 54(excluding 9 interview and 4 document review) questionnaires were distributed. Stratified random sampling was used to get information from different groups of MSMEs respondents. Accordingly, respondents are diversified in terms of educational qualifications, job positions, and other parameters. Thus, the stratified sampling method is applied to avoid such heterogeneity of the population. This technique is preferred because it is used to assist in minimising bias when dealing with the population.

Table 3.1 framework for the sampling and data collection techniques

Item no	Type of respondents	Sample size	Sampling technique	Data type	Data collection	Method of research instrument
1	MSMEs contractors representatives	24	Purposive	Primary	Survey	Questionnaire
		1	Purposive	Primary	In-depth interview	Interview
2	Clients	10	Purposive-random	Primary	Survey	Questionnaire
		4	Purposive	Primary	Observation	Interview
3	Government officials	10	Purposive-random	Primary	Survey	Questionnaire
		4	Purposive-random	Secondary	Document analysis	Document review Checklist

4	private consultants	5	Purposive-random	Primary	Survey	Questionnaire
		2	Purposive-random	Primary	In-depth interview	Interview
5	Larger construction contractors	5	Purposive-random	Primary	Survey	Questionnaire
		2	Purposive –random	Primary	In-depth interview	Interview
Total		**67**				

3.8 Source of data

In order to conduct this research both primary and secondary data were used. Primary data was collected from questionnaire, in depth interview, field survey (observation).

Interview respondents were intentionally selected who could offer distinct perspectives aligned with research objectives, their responsibility and day to day interface with sector issues ,and those granting consent and having adequate band width were interviewed to respect their time. Some of interview respondents include; head of relevant departments dealing with permitting, senior consultants with long experience in the local market and proven track record of working with MSMEs contractors, managers of registered enterprise, and, managers and site engineers who oversee subcontracting issues. Construction building projects selected for desk study components based on timelines which completed or ongoing projects (3-5 years) to get timely, accessible documentation, data availability, respondent referrals, reviewing the feasibility study and tender documents**,** checking contract agreements **,**payment certificates**,** monthly progress reports **,**meeting minutes studied**,** inspection procedures and formats, completion period of projects, and founding sources. The selected projects are; ANRS North Shewa Zone, H/Kesem Wereda, Gorfo clinic building projects, North Shewa Zone, Bulga Town Administration, office building, North Shewa Zone, Bulga Town Administration, disabled and elder residence house, and construction of clinic project for the municipality in Ginger town. Projects are selected based on relevance

to sector, scale which is to examine MSMEs contractor capacity and challenges at significant implementation scale, access of information on projects, timelines of projects and MSMEs contractors intensity. Secondary data was obtained from contract agreement, literatures journals, researches, site reports, policy document, and organizational records of the project, previously done researches. From files, office manuals, circulars and policy papers were used to provide additional information where appropriate. Besides, variety of books, government documents, websites, and reports were reviewed to make the study fruitful.

3.9 Data collection tool

In order to realize the target, the study used designed questionnaire as best instrument. This was completed by the MSMEs contractors, organization managers or operators of the enterprises. Besides, in depth interviews with the MSMEs operators and the relevant owner managers, who head the enterprises in the selected sectors, contractors‟ side engineers, and consultants‟ side supervisors and government officials. The interview method of data collection is preferred due to its high response rate, gives the concerned people an opportunity to interact and get details on the questions and answers, clarification of issues is easily achievable leading to accuracy of data from the respondents. In addition, we were used field survey (observation). The second mechanism of data collection in which used this research was secondary data. For these objectives the data collection methods are survey, in depth interview and through desk study, in addition to the above methods checklist and observation was used.

3.9.1 Questionnaire survey

This questionnaire survey is the main instrument of the research. The questionnaire should be appropriate in order to approve the validity of the problem statement and in order to get relevant data. Then, the questionnaire were distributed to the MSMEs contractors and concerned construction parties. If they may get some confusion about the question, the researcher will give assistance by elaborating and explaining the idea of the questions. The questionnaire has four parts: the first part of the questionnaire is describing the background information of the respondents. The second and third part of the questionnaire is describing organizational related issues. Within this part role and challenges of MSMEs contractors on

building construction projects is going to be assessed. And the fourth part of the questioner is policies and strategies to enhance the roles of MSMEs contractors in the study area. For each part, both open-ended and cloth ended questions are going to be used to extract the required data from respondents. In order to get an appropriate and exact answer, the researcher is tried to use simple, clear and unambiguous language.

3.9.2 Key informant interview and Field observations

The other data collection instrument was key informant interview which was essential to collect qualitative data. The information gathered through this instrument was used to triangulate information collected through other methods. The data was gathered by interviewing some government officials, client organizations, consultants, large contractors as well as MSMEs operators who have better knowledge and experience in subject matter or in the field. In this study the key informants were the main actors of the study area such as MSMEs representatives, experts and the MSMEs development program officers. Face to face interview was held about the varies issues of enterprise in order to identify the nature of the problem.it was framed in the way that enables to collect information on the characteristics and problems encountered as well as the role they have in the building construction projects. In addition, observing their working area was an important means of gathering information in the study area. This allows me to develop confidence to speak and analyze what is being said and what is really going on the actual setting. For this study, the researcher collected data based on the checklist and also discussed the observed activities of the workers in the projects in different working hours. This allows me to develop confidence to speak and analyze what is being said and what is really going on the actual setting.

3.9.3 Case study

A case study is a detailed study of a single, group, organization, event, or project. The data for case studies come from a variety of sources, including observation, interview, questionnaire, reports and archival records (such as minutes of meetings) (Kumar, 2014). Appendix-C to collect the necessary data for the third objectives checklist prepared list out and prioritize the task. In order to have information on the stated problem, data will be found from MSMEs contractor performance report. This helps to know progress and completion reports of a project within Micro, Small, and Medium enterprise construction contractors in

North Shewa Zone. Conduct in depth case studies on specific building construction projects that have prominently involved MSMEs contractors. This case study can provide a detailed understanding of unique roles, challenges, and strategies employed by MSMEs contractors in different project contexts. The data collected through the desk study is showing that the sensitivity of the topic of the research.

3.10 Data analysis

The study used both descriptive and inferential statistics to analyze the data. Descriptive statistics used to summarize the data, while inferential statistics used to identify the relationship between variables is correlated with an aim of rating level of challenges faced by MSMEs contractors. The Statistical Package for Social Science (SPSS) version 23 was used to analyze the data obtained from primary sources. The interview results were analyzed using descriptive narrations through concurrent triangulation strategy. The study also used content analysis to analyze the qualitative data collected from interviews, case studies and observations.

Both primary and secondary sources of data were analyzed using both qualitative and quantitative methods to achieve all objectives .The procedure used in analyzing of data was aimed at establishing the relative importance of the various factors. There are three steps in analyzing the data: calculating Relative Importance index (RII), ranking of each factors based on RII. Determining correlations coefficients to examine relationships between scaled variables and regression to conclude rating level of challenges faced by MSMEs contractors. The methods of analysis used in analyzing the data were: Relative Importance Index (RII). Rating scale is one of the most common formats for questioning respondents on their views or opinions of an event or attribute. In this regard, participants were asked to indicate the importance or level of agreement of factors (research variables) by rating them on a five point scale, (1-strongly disagree, 2-disagree, 3- neutral, 4-agree and 5-strongly agree) and it is used to calculate the importance index for each factor that is used to determine the relative ranking. Relative importance index can be calculated as:

Relative Importance index (RII) = $\frac{\sum(Wi*fxi)}{A*N}$ ……equation 3.2

Where;

Wi = weight given to ith response; i = 1, 2, 3, 4, 5 in this research case

fxi = Responses frequency

N = Total No of responses

A=Highest weight

The Important index for each variable computed by using the above formula

Interpretation Rating for RII ranges

Relative Importance Range	Rating
0.8 to 1.0	Very significant
0.6 to 0.8	Significant
0.4 to 0.6	Neutral
0.2 to 0.4	Little Significance
0.0 to 0.2	Very little Significance

In the open-ended questions, there will be common responses within a majority of the respondents. These responses are going to be categorized according to their similarity and the number of times they mentioned. Then, the percentage can easily calculate using the standard statistical formula for a percentage as follows:

$$\% = \frac{\alpha \times 100}{\sum \mu}$$ ……equation 3.3

Where, α = numbers of times mentioned

∑ μ = total respondents

3.11 Correlation analysis

Bivariate correlation using Pearson's r will also be conducted to examine relationships between scaled variables measuring constructs of interest based on the literature review. According to Duncan C. and Dennis H. (2004:38-41), correlation coefficient can range from -1 to +1. The indexes to interpret the correlation coefficients' and to interpret the p-values use the following references.

Coefficients(r)	Strength of the correlation(positively and negatively)
0.0 to 0.1 and -0.1 to 0.0	No correlations
0.2 to < 0.3 and - 0.3 to -0.2	Low correlations
0.3 and <0.5 and -0.5 to -0.3	Medium correlations
0.5 and <0.7 and -0.7 to -0.5	Strong correlation
0.7 and <1.0 and -1.00 to -0.7	Very strong correlations
1.0 and -1.0	Perfect correlation

P-value index and statistical interpretation: If p-value < 0.05(reject the null hypothesis) and if p- value > 0.05(no sufficient evidence to reject the hypothesis).

3.12 Model and Variable Specification

For the analysis of the dependent variables and independent variables of the study multiple linear regression models used in the regression analysis was stated as follows:

$Y=a+\beta1X1+\beta2X2+\beta3X3+\beta4X4+ \beta4X5+ \beta5X6+ e$

$Y=a+\beta1EP+\beta2WA+\beta3CC+\beta4CCSE+ \beta4MS+e$

Where: e = the error term

a = Coefficient of intercept (Constant)

β1… β5 = the regression coefficients representing the change in Y relative to a one-unit change in X1 … X6, respectively.

Y=dependent variable (Level of MSMEs contractors faced)

X1 = Financial problems (FP)

X2 =Management problems (MP)

X3 = Ethical problems (EP)

X4 =Infrastructural barriers (IP)

X5 = Political, regulatory and policy related problems (PRP)

X6 = Technological related problems (TP)

3.13 Validity and reliability

For the purpose of the reliability and validity of the data the following measure will takes; Validity is the most unselfish ordinary and designates the step to which an instrument measures what is make-believe to measure. It can also be expected of as usefulness. According to (Kothari, 2004) validity is the degree to which variances originate with a gauging tool mirror factual changes amongst those being tested. Its determination is primarily judgmental and intuitive; there is no mathematically way to express it. In order to increase the validity and reliability of the data I will prepare field work manual to check the progress. And also assistants selected and trained to handle carefully. The collected data also checked the quality. Some past studies carried out by Enshassi et al. (2009), and Terefe Alula (2022) also choose to use the Cronbach α to calculate the accuracy of the data obtained. Cronbach α value can be calculated as:

$$\text{Cronbach } \alpha = \left(\frac{k}{(k-1)}\right) \times \left[1 - \frac{\sum(s^2_i)}{s^2_{sum}}\right]$$ ……equation 3.3

Where s^2i is the Variance for the current sample of respondents; k is the total number of contributing factors and s^2sum is the variance for the sum of all respondents. Ideally, Cronbach's α should be greater than 0.9, but anything above 0.7 is considered acceptable for most research purposes (Allen and Bennett, 2010). The table indicates below enforces the above assumptions (Source: SPSS generated from own survey, 2024).

Table 3.2 Cronbach's Alpha Result for MSMEs role for building construction projects

Cronbach's Alpha	Item
0.961	28

Table 3.3 Cronbach's Alpha Result for Challenges and barriers faced by micro, small, and medium enterprise contractors

Cronbach's Alpha	Item
0.898	43

Table 3.4 Cronbach's Alpha Result for policies and strategies to enhance MSMEs role for building construction projects

Cronbach's Alpha	Item
0.893	8

3.14 Ethical considerations

The research addressed the following ethical issues: using the introductory letter (appendix 1) that came with the questionnaire, the following ethical issues were addressed: Informed consent was obtained from all participants, ensuring confidentiality and voluntary participation. In addition, respondents have rights to know the purpose of the study and how the process was conducted in both the letter and the questionnaire.

CHAPTER FOUR

RESULTS AND DISSCUSTION

4.1 Introduction

This chapter provides clarification for data collection, such as the distribution of the questionnaire, the collection of responses, and the subsequent analysis of the data acquired through the responses from professionals who are working for MSMEs contractors, clients, private consultants, government officials, and large contractors who are involved in the building construction sector in the North Shewa zone. The primary objective is to evaluate MSMEs' role as well as challenges with building construction projects in the North Shewa zone. In order to address the fundamental study issue, a questionnaire survey has been undertaken to collect the necessary data from experts who have worked in the North Shewa zone's building construction sector on behalf of clients, government officials, private consultants, large contractors, and MSMEs contractors. As a total of 67 sample respondents, 9 were selected for in-depth interviews, 4 were selected for document review using checklists, and 54 questionnaires were sent to the selected sample of respondents, which consisted of 10 from the clients, 10 from government officials, 5 from larger contractors, 5 from private consultants, and 24 from MSMEs contractor representatives.

4.2 Results and discussion of the questionnaire survey

To evaluate the roles and challenges of MSMEs contractors in building construction projects, 54 (excluding 9 interview and 4 document review) questionnaires were distributed to individuals and organizations in the sample. Among those, 49 were answered by respondents. The results listed below might not fully reflect all of the study area's initiatives, but respondents were given a series of questions aimed at determining the MSMEs contractor roles, the challenges and barriers, and the policies and strategies to enhance their contributions.

4.2.1 Respondent profile

The demographic profile of respondents is critical for understanding the context of the findings (Groves et al., 2009). Among the most important demographic variables, gender,

type of organization, type of project, job title, experience, level of education, and number of members in the organization were used to characterize the respondents.

4.2.1.1 Gender of respondents

Table 4.1 Gender of the respondents

Respondents sex	Frequency	Percent
Male	37	75.50
Female	12	24.50
Total	49	100

Source: own survey (2024)

As far as the sex of the respondents is concerned, the result clearly shows that there is male dominance in MSMEs operations in the studied area. The proportion of men in MSMEs covers 75.50%, and women constitute only 24.50%, demonstrating that there is a clearly observable gender gap. This agrees with the finding of Fredrickndaire K. (2012), who viewed this as a true reflection of the construction industry, which is predominantly male.

4.2.1.2 Type of organization of the respondents

Table 4.2 Type of respondents' organization

Respondents	**Number of questionnaire distributed**	**Number of response**	**Percent**
Client	10	7	70
Large contractors	5	4	80
Private consultants	5	4	80
MSMEs contractors	24	24	100
Government officials	10	10	100
Total	**54**	**49**	**90.74**

Source: own survey (2024)

The overall response rate for the survey was 49 (90.74%). The response rate in the survey was 7 (70%) for clients, 4 (80%) for private consultants, 4 (80%) for large contractors, 24 (100%) for MSMEs contractor representatives, and 10 (100%) for governmental officials.

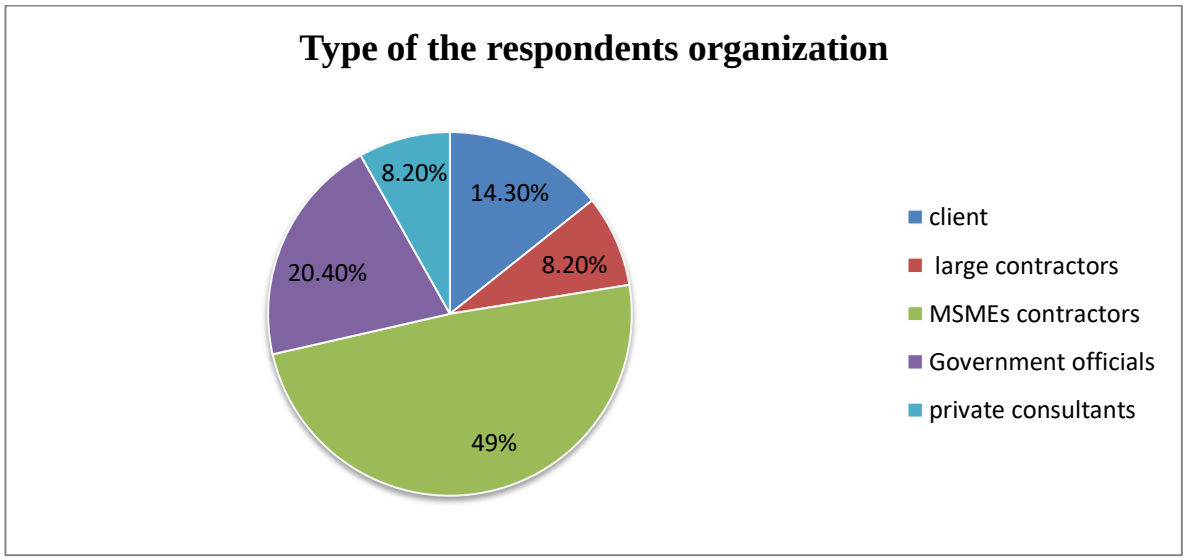

Figure 4.1 Type of the respondents' organization (Own survey, 2024).

Figure 4.1 shows that among the 49 questionnaire respondents, 7 (14.30%) were clients, 4 (8.20%) were private consultants, 4 (8.20%) were large contractors, 24 (49.00%) MSMEs contractors, and 10 (20.40%) were governmental officials.

4.1.2.3 Typical of projects of organization

Table 4.3 typical of projects of organization

Type of projects of organization	Frequency	Percent
Public building	30	61.20
Private building	13	26.60
Others	6	12.20
Total	**49**	**100.00**

Source: own survey (2024)

The study is directly focused on micro, small, and medium enterprise contractors; hence, it is imperative that the project types are specified. As shown in table 4.3, most of the MSMEs

contractor respondents participate in public building projects, which constitute 61.20% of the type of work. Private building projects are at 26.50%. Others are made up of 12.20%.

4.2.1.4 Job title of the respondents

Table 4.4: Frequency and percent of job title of the respondent

Job title of respondent	Frequency	Percent
Site engineer/office engineer	15	30.60
Project manager	8	16.30
Organization manager	14	28.60
Others	12	24.50
Total	**49**	**100.00**

Source: own survey (2024)

Table 4.4 showed that the respondents, as business owners and stakeholders, are most informed about how it is done; hence, the expectation is that accurate responses will be provided. The above table indicates that most of the respondents were managers, site engineers, and office engineers, which were 44.90% and 30.60% of the total respondents, respectively. This makes the study more accurate because the owner of the company and its managers are well-versed in the business. The rest of the respondents who are employed covered 24.50% of the sample.

4.2.1.5 Experience of respondents

Table 4.5: Experience of respondents (years)

Experience	Frequency	Percent
<5	23	46.90
5 - 10	20	40.80
10 -15	4	8.20
>15	2	4.10
Total	**49**	**100**

Source: own survey (2024)

Table 4.5 shows that 46.90% (23) of the respondents have experience less than 5 years, 40.80% (20) of respondents have experience between 5 and 10 years, 8.20% (4) of respondents have experience from 10 to 15 years, and 4.1% (2) have experience more than fifteen years. Based on the above data, the highest rate of professional's work force experience ranges from 10–15, which indicates experienced workers are on board and can be considered satisfactory, but counting years could not meet the criteria for being skilled. Here, the judgment shall come after due observation of the outcomes of the projects. Most, if not all, construction industries highlight the importance of having experience in order for any role to be performed to excellence. Thwala and Mofokeng (2012) highlighted that the percentage of experienced respondents is fewer than other respondents; he implies that only 12% of those in the construction sector have 15 years' experience and 40% of them have between six and ten years.

4.2.1.6 Level of education

Table 4.6 level of education

Level of education	Frequency	Percent
High school	1	2.00
Diploma	4	8.20
Degree	38	77.60
Masters	6	12.20
Total	**49**	**100.00**

Source: own survey (2024)

Table 4.6 shows the level of education of the respondents. From the above table, one can understand that the majority of respondents have completed BSc educational qualifications, which are 77.60% of the sample population. This is contrary to a study undertaken by Aigbbavboa and Thwala (2014), which indicated that a majority of 33% of the sample had diplomas, while only 27% had bachelor degrees. This shows the owners or responsible bodies of MSMEs and construction companies have no problem answering the given questionnaire. Another group of respondents were 2%, 8.20%, and 12.20% who had

completed high school, diplomas, and masters, respectively. Since education is important in the practice and implementation of the project, it is known that the level of theoretical concepts exposed to by the respondents may directly influence efficiency. This shows that the involvement of highly qualified professionals contributes to the proper accomplishment of the work. Fredrickndaire K. (2012) suggested that the level of education is an important aspect in terms of MSMEs contractor firm performance.

4.2.1.7 Number of enterprise members

A number of enterprises member is different from one another. Therefore, the respondents were answering these questions in the following way.

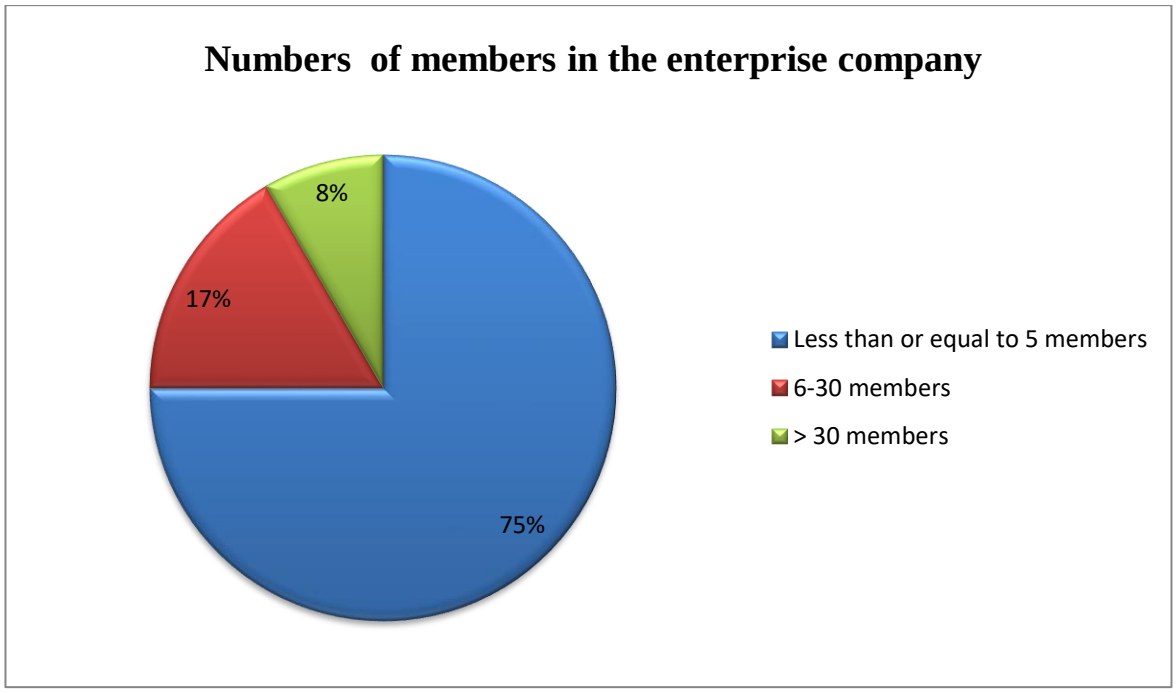

Figure 4.2: Numbers of members in the enterprise company (Own survey, 2024).

As it can be observed from the figure, 75%, 17%, and 8% of construction enterprises have less than five members, six to thirty members, and more than thirty members, respectively. This shows that enterprises that have more members have a higher chance of failure than those with fewer members. This is due to the fact that enterprises with a larger member's base find it difficult to tolerate one another's strange ideas, which has a detrimental effect on their business.

4.2.2 Policy and strategies to enhance MSMEs contractors' role to the building construction industry

Table 4.7 policies and strategies to enhance MSMEs contractors' role for building construction projects.

Policies and Strategies to enhance MSMEs contractors role for building construction projects	Frequencies of respondents					RII	Rank
	1	2	3	4	5		
Financial support and assistance	26	18	3	1	1	0.873	1
Encourage the adoption of technology and innovation	8	32	5	3	1	0.776	6
Provide access to market opportunities	13	27	5	3	1	0.796	4
Encourage collaboration and partnerships between MSMEs and large contractors	21	22	4	1	1	0.849	3
Provide training and development programs	4	37	4	4	0	0.767	7
Simplifying regulatory environment and reducing bureaucracy	27	15	3	2	2	0.857	2
Streamline procurement and tendering processes	12	27	6	4	0	0.792	5
Improve infrastructure	5	19	7	16	2	0.637	8

Source: own survey (2024)

In regard to policy and strategies to enhance MSMEs contractors' contribution to the building construction industry, as indicated in Table 4.15, the majority of the respondents believe that financial support and assistance RII equals 0.873, simplifying the regulatory environment, and reducing bureaucracy RII equals 0.857. The findings are consistent with Hussain et al. (2006) and Waqjira Beyene (2018), who found that even though governmental support is essential for MSMEs during the start-up phase, most of them do not get adequate government support. However, even though a significant proportion of respondents believe that there is another policy and strategy, which is to encourage collaboration and

partnerships between MSMEs and large contractors with RII equal to 0.849, provide access to market opportunities with RII value 0.796, streamline procurement and tendering processes with RII value 0.792, encourage the adoption of technology and innovation with RII value 0.772, provide training and development programs with RII equal to 0.767, and improve infrastructure with RII equal to 0.637.

Generally, some respondents provide other policies and strategies to enhance MSMEs contractors' contribution for building construction projects; create motivation for MSMEs contractors, create good image about MSMEs contractors in the society, and encouraging the transition of successful MSMEs contractors to medium and large scale enterprise contractors.

4.2.3 The roles of MSMEs contractors in building construction sector.

4.2.3.1 Key MSMEs contractors' role to building construction projects.

This section deals with the analysis of the information gathered from the questionnaire survey including identification of contribution, frequencies of respondents, RII with respective rank MSMEs contractors to building construction industry.

Table 4.8 the relative importance index (RII) and rank on key MSMEs contribution to building construction project.

Key MSMEs roles for building construction projects	**Frequencies of respondents**						
	1	2	3	4	5	RII	Rank
Local content promotion using local products	20	26	2	1	0	0.865	2
Economic growth by providing service and products	7	35	5	1	1	0.788	6
Triggers innovation and creativity	7	25	13	4	0	0.743	8
Job creation	31	16	2	0	0	0.918	1
Cost effectiveness	8	17	8	15	1	0.665	11

Enhance productivity	12	15	10	11	1	0.706	10
Ensure efficiency of construction process	5	29	4	10	1	0.710	9
Adherence to local regulation	5	30	10	3	1	0.743	8
Reduction of construction period	15	22	7	5	0	0.792	5
Enhance competition between contractors	11	31	6	1	0	0.812	3
Improve the linkages between diverse sectors	8	32	4	3	2	0.767	7
Keep environmental sustainability	12	27	7	2	1	0.792	5
Improve quality in building construction project	18	20	5	5	1	0.800	4

Source: own survey (2024)

The respondents placed job creation at the top of the list, giving it a RII of 0.918. Nowadays, the construction industry is having trouble filling job openings due to a lack of trained personnel. Carpenters, iron fixers, masons, concrete workers, plumbers, shutter carpenters, and electricians comprise some of the skilled employees in the construction industry. Local content promotion has been ranked by respondents in the second position, with a RII of 0.865. MSMEs promote local products by using locally sourced materials and labor. The building construction industry, these enterprises can promote local products by using local materials ,such as brick, sand, timber ,and hiring local workers which support the local economy (Kuratko,2019). A building is carefully planned assembly of many structural and non-structural elements. The structural and non-structural components used in building construction are produced by MSEs operating in the construction sector. They contribute to the building construction sector by creating several building components, such as hollow concrete blocks, gypsum board, precast beams, agro-stone products, and metal and wood work products (AAHDPO, 2017).

Improving quality in building construction projects ranked in the third position, with a RII of 0.800. As I observed above, the quality of equipment and raw materials in the project and the availability of personnel with high qualifications strongly affect the quality and

performance of the project. According to Saleh Samir (2008) and Mamo A. (2019), the number of disputes and rework assignments during a project has an impact on the quality of performance. Cheung et al. (2004) remarked that quality groups affect moderately the performance of construction projects. Iyer and Jha (2005) observed that quality performance affects the cost performance of construction projects.

Construction period reduction and environmental sustainability are the other roles, as they have the fifth rank among all factors with a RII of 0.792. Enhance productivity ranked in the tenth with a RII of 0.706. Productivity affects the cost, time, and quality of projects. Saleh Samir (2008) and Mamo A. (2019) remarked that productivity is an important indicator affecting the performance of construction projects. Economic growth ranked in the sixth position, with a RII of 0.788. Ensure the efficiency of the construction process, which ranks in the ninth position with a RII equal to 0.710. Triggers of innovation, creativity, and adherence to local regulations ranked with eighth position with RII value 0.743. Improving the linkages between diverse sectors ranked in the seventh position with a RII of 0.767.Cheung et al. (2004) remarked that construction costs are expenses incurred by a contractor for labour, materials, equipment, financing services, utilities, and so on, plus overhead and contractor profit. Cost-effective construction techniques, materials, and different management strategies during the execution of the project play an important role in saving time as well as the cost of construction. Thus, cost reduction techniques assure the best cost-value over the life cycle of the building structure. Cost effectiveness ranked in the last position, with a RII of 0.665. Generally, some respondents provide other roles of MSMEs contractors; flexible and agile operations, use as source of knowledge, reduction of wastage and reuse of local products, reduce responsibility of contractors, and facilitating works with sub contracts.

4.2.3.2 MSMEs roles to building construction projects in terms of quality, time and cost aspects.

Table 4.9: the relative importance index (RII) and rank the evaluation of MSMEs contractor role on building construction projects in terms of quality, time and cost aspects.

MSMEs roles to building construction projects	MSMEs	
	RII	Rank
Quality aspects		
Adherence to the specifications	0.876	1
Durability	0.767	4
Appropriate for the task	0.826	3
Free from defects	0.739	6
Aesthetics	0.758	5
Friendly to the environment	0.837	2
Time aspects		
Construction period reduction	0.898	1
Reduces project processing time	0.816	2
Reduction in production cycle time	0.808	3
Reduce work schedule tightness	0.763	4
Cost aspects		
Production of cost efficient material	0.861	1
Reduce site additional cost	0.731	2
Reduce project delayed cost	0.686	4
Saving project cost	0.727	3
Reduce project processing cost	0.722	5

Source: own survey (2024)

4.2.3.2.1 Quality aspects

Adherence to the specifications has been ranked by respondents in the first position, with a RII 0.876. Mamo A. (2019) remarked that conformance to the specifications is an important indicator of roles in quality construction projects .A specification can apply and categorize requirements based on profiles or levels, or it may indicate the permissibility of extensions by specifying varying degrees of adherence that distinguish conformance claims from one another. The phrase "adherence level" is frequently used to denote the various degrees of adherence when an adherence claim is connected to functionality, impact, and/or

incremental degrees of implementation. A construction defect is commonly understood to be an imperfection or deficiency in the design, construction, and materials or systems utilized on a project that may not be easily noticeable and leads to a structure, building, or component that is unfit for its intended use. Free from defects has been ranked by MSMEs respondents in sixth place with a RII of 0.739. This indicates that respondents are not satisfied with the quality of MSMEs work. Durability of the product has been ranked by MSMEs respondents in fourth place, with a RII of 0.767. Friendly to the environments have been ranked by MSMEs respondents in second place, with a RII of 0.837. This indicates that the products are not harmful to the environment. Different written documents about the products of MSMEs also strengthen this result. When planning or carrying out a construction project, we should fully support and adhere to environmental legislation on dynamic nature conservation. This will only become feasible if we maintain a strong interest in protecting the environment and respect the conversion of matter and energy (Cazacu, 2015).

4.2.3.2.2 Time aspects

Construction period reduction has been ranked by MSMEs respondents in first place, with a RII of 0.898. The duration of the construction project affects the cost. An increase in project duration can increase the construction project cost due to an increase in indirect costs, while a reduction in construction costs also increases the project cost due to an increase in direct costs. Cycle time is the total of all activity durations, minus activity overlaps, plus the total of all queue times, or the amount of time that an area in a house remains incomplete. Mamo A. (2019) remarked that shorter wait times, overlapping tasks, and shorter activity durations all contribute to shorter cycle times. A reduction in production cycle time has been ranked by MSE respondents third, with a RII of 0.808. Therefore, the MSMEs work force significantly reduces the production cycle time of construction materials in building construction projects. Reducing project processing time has been ranked by MSMEs respondents in second place, with a RII of 0.816. Process time is the time that would be needed by the client and consultant to integrate the production process if the production of construction material responsibilities were given to each contractor. Reducing work schedule tightness has been ranked by MSMEs respondents in fourth place; with a RII of 0.763.A tight project schedule requires a lot of foundational work because the schedule is so

heavily integrated with other parts of the project and is one of the visible deliverables. According to this result, MSMEs have a great impact on reducing the work schedule tightness of building construction projects by taking on the burden of producing different components of the project.

4.2.3.2.3 Cost aspects

Production of cost-efficient material has been ranked by the MSMEs respondents in the first position, with a RII of 0.861. Since MSMEs create their products domestically, the impact of taxes, transportation expenses, and foreign exchange is reduced. The cost of building supplies comprises the material cost, shipping costs, and any additional taxes. Consequently, when evaluating the cost of building materials, it is crucial to include each of these deviations (Mahadik, 2015). Reduced site additional costs have been ranked by the MSMEs respondents in the second position, with a RII of 0.731. MSMEs contractors take the responsibility of all parties involved in the construction of buildings; this lowers the number of workers required to complete activities and has a direct impact on overhead costs. The term "overhead costs" refers to expenses made by the contractor to support the work but that do not form part of the actual construction process.

A building contractor's overhead expenses can be roughly classified into two groups, according to Peurifoy and Oberlander (2012); project overhead costs and company overhead costs. Saving project costs has been ranked by MSMEs respondents third, with a RII of 0.727. The tasks of producing construction material by MSMEs highly reduce the expense of contractors for labour and materials. Reduced project process cost has been ranked by MSMEs respondents in fifth place with a RII of 0.722. Process cost is the amount of money that the client and consultant would have to spend to integrate the manufacturing process if each contractor were responsible for producing construction materials. The term "overtime" refers to any hours worked by an employee beyond their monthly allotted hours. For the purpose of calculating overtime compensation, holidays, vacation days, days spent on jury duty or witness leave, and days spent on compensatory time off will all be counted as hours worked. Reduce project delay cost has been ranked by MSMEs respondents fourth with a RII equal to 0.686. If all tasks were given to the contractor, there would be schedule tightness for the contractor, and he would be forced to perform tasks that were delayed.

4.2.4 The current challenges and barriers faced by MSMEs contractors in building construction projects.

The relative importance index (RII) and rank on the current challenges and barriers faced by MSMEs contractors. The questionnaire survey result which described financial related problems was presented in tabular form in the following way.

Table 4.10 Response given to financial problems of MSMEs contractors

List of financial problems	Frequency of respondents					RII	Rank
	1	2	3	4	5		
Inflexible credit terms from suppliers	8	34	6	1	0	0.800	3
Problems in obtaining guarantee bonds sureties and insurance bonds	13	12	4	20	0	0.673	5
High tendering cost	7	16	3	22	1	0.624	7
Problems in obtaining loans to finance projects	10	13	3	21	1	0.626	6
Delay in collecting payments	28	15	3	1	2	0.869	1
Inflexible credit terms from banks	5	15	6	22	2	0.608	8
poor estimation practices	8	33	6	2	0	0.792	4
Low profit margin due to competition	15	29	2	2	1	0.824	2

Source: own survey (2024)

This results in the supplier requiring cash up front and not delivering the material or equipment until payment is made in full. This in turn gives rise to many undesirable problems in their development to a higher grade and improving the few local and national contractors; it also results in bad relationships with their suppliers, banks, quality of work, time, unrest on site, and abandonment of work, among others. The findings were confirmed in studies by Endalkachewu (2008) and Roderick (2010), and they also agreed with the findings and literature that access to finance remained a dominant constraint to MSMEs development to improve weak local and international contractors.

Most contractors stated that the project was mostly delayed by late payments from the clients due to the long payment process. While most clients and consultants did not agree

with the late payment, delays in payment from clients to contractors lead to delays in the contractors' performance and cause problems with time performance. This may also lead to disputes and claims between clients and the project contractor. All of that will affect the overall performance of the project that has been implemented. Peter et al. (2015) remarked that the average delay in payment from clients to contractors affects time performance and causes delays in projects.

The questionnaire survey result, which described management-related problems, was presented in tabular form in the following way:

Table 4.11 Management related problems

List of management problems	Frequencies of respondents					RII	Rank
	1	2	3	4	5		
Book keeping (accounting)	9	34	4	2	0	0.804	5
Contract administration	14	29	4	2	0	0.824	2
Leadership & communication	8	33	6	1	1	0.792	6
Finance management	13	30	4	2	0	0.820	3
Site management	9	17	6	14	2	0.657	8
Contract document interpretation	8	13	7	17	4	0.616	9
Financial controls	21	20	3	5	0	0.833	1
Cash-flow management	10	25	7	5	1	0.747	7
Credit management	6	20	8	13	1	0.657	8
Time management	17	23	5	3	1	0.812	4

Source: own survey (2024)

The result about management-related problems showed that financial control is the most dominant problem contributing to the failure of MSMEs and construction contractors in the North Shewa Zone. This was happening because most construction enterprises have spent project funds on their personal interests instead of using these funds properly on the given projects, and this could be the cause of the business's failure. This result is supported by Mamo A. (2019), who said that many small firms have failed to keep adequate financial records and are often unaware of current financial situations. The second and third rank of

management problems are contract administration problems with a RII value of 0.824 and financial management problems with a RII value of 0.820, respectively. The other factors, which include the fourth to ninth rank of management-related problems, are time management problems with a RII value of 0.812, bookkeeping (accounting) problems with a RII value of 0.804, leadership and communication problems with a RII value of 0.792, cash flow management problems with a RII value of 0.747, site management and credit management with a RII value of 0.657, and contract document interpretation with a RII value of 0.616, respectively.

Table 4.12 Ethical related problems

List of ethical problems	Frequencies of respondents					RII	Rank
	1	2	3	4	5		
Colluding of tenders	4	18	12	14	1	0.641	5
Client influence in awarding contracts or self-fixing of rates by the client	12	31	4	2	0	0.816	2
Influencing tender results using corrupt ways by large contractors	7	24	17	1	0	0.751	3
Consultants seeking bribes from contractors	24	22	2	1	0	0.881	1
Clients seeking bribes from contractors	9	23	9	8	0	0.735	4
Stealing of material and equipment	5	18	3	21	1	0.608	6

Source: Own survey (2024)

As described in the above table (table 4.11), most respondents believed that the problem of seeking bribes (corrupt) by consultants from contractors was the most serious ethically related factor for the failure of MSMEs construction contractors in the North Shewa zone. The other ethically related problems that could be the cause of the failure of MSMEs contractors, according to their highest RII value order, are problems with awarding contracts or self-fixing rates by the client with a RII value of 0.816, problems with influencing tender results using corrupt ways by large contractors with a RII value of 0.751, problems with clients seeing bribes from contractors with a RII value of 0.735, problems with colluding

tenders with a RII value of 0.641, and problems with stealing material and equipment, respectively. This finding of the research is confirmed by Besho (2008) and Arega A. (2016), noted that corruption, bribery, and fraud are not new phenomena in the construction industry.

Table 4.13 Infrastructural barriers

Infrastructural barriers	Frequencies of respondents						
	1	2	3	4	5	RII	Rank
Interruption of electricity supply	17	27	3	2	0	0.841	2
Insufficient access to water supply	20	25	2	2	0	0.857	1
Poor road infrastructure	6	22	3	17	1	0.702	3
Lack of sufficient and quick transportation service	5	21	2	20	1	0.637	4
Lack of appropriate waste removal techniques	9	11	7	21	1	0.624	5

Source: own survey (2024)

In regard to infrastructure barriers, insufficient access to water supply is the most severe challenge, RII equal to 0.857, followed by interruption of electricity supply, RII equal to 0.841, and poor road infrastructure, RII equal to 0.702. The finding is consistent with Waqjira Beyene (2018), who found that insufficient access to water supply and interruption of electricity supply are the major infrastructure barriers for MSMEs contractors during the operation of their businesses. However, the view on the lack of sufficient and quick transportation service and the lack of appropriate waste removal techniques was not more significant. Although a significant proportion of respondents also believe that a lack of sufficient and quick transportation service and a lack of appropriate waste removal techniques affect their contribution, a greater proportion believes otherwise. See Table 4.12 for the results.

Table 4.14 Political, regulatory and policy related problems

List of political, regulatory and policy related problems	Frequencies of respondents					RII	Rank
	1	2	3	4	5		
Political instability	32	12	3	1	1	0.898	1
Lack of government support	22	21	5	1	0	0.857	4
Multiple taxation	29	13	5	2	0	0.882	2
Bureaucracy in company registration and licensing	24	20	1	4	0	0.861	3
Lack of accessible information on government regulation and policy that are relevant to the business	5	20	5	19	0	0.645	6
The negative attitude on MSMEs building contractors	7	17	4	19	2	0.633	7
Change in government regulation and policies	9	20	4	15	1	0.686	5
Non-payment of interest on delayed payment	6	14	6	21	2	0.604	8
Suspension of projects of previous government	3	18	3	20	5	0.576	9

Source: own survey (2024)

An analysis of the above table shows the degree of agreement between respondents on political, regulatory, and policy-related problems. According to the analysis result, a problem of political instability with a RII value of 0.898 is ranked first, which challenges MSMEs and construction contractors. The remaining political, regulatory, and policy-related problems that rank second to ninth according to their highest RII value order are problems of multiple taxation with a RII value of 0.882, bureaucracy in company registration and licensing with a RII value of 0.861, government support with a RII value of 0.857, payment of interest on delayed payments with a RII value of 0.604, change in government policy and regulatory, and policy-related problems that rank second to ninth according to their highest RII value order are problems of multiple taxation with a RII value of 0.882, bureaucracy in

company registration and licensing with a RII value of 0.861, government support with a RII value of 0.857, payment of interest on delayed payments with a RII value of 0.604, change in government policy and regulation, which has a RII value of 0.686, problems accessing information on government policy and regulation with a RII value of 0.645, the negative attitude on MSMEs with a RII value of 0.633, and problems of suspension projects of previous government with a RII value of 0.576, respectively. Waqjira Beyene (2018) supported these findings in his research papers. To this end, they were forced to hide their real capital, making it difficult to identify those who are transformed and not yet transformed.

Table 4.15 technological related problems

List technological related problems	Frequencies of respondents					RII	Rank
	1	2	3	4	5		
Lack of skilled human resources to handle the new technology	12	28	2	6	1	0.780	2
Lack of appropriate machinery and equipment	11	17	5	15	0	0.686	4
Lack of access to new technology	10	21	4	13	1	0.706	3
Lack of finance to acquire new technology	15	26	4	3	1	0.808	1
Unable to select proper technology	9	14	3	19	1	0.608	5

Source: own survey (2024)

The result shows that regarding technological-related problems, lack of finance to acquire new technology was the most severe challenge for the failure of MSMEs construction contractors in the North Shewa Zone. The remaining technology-related problems that could be the cause of the failure of MSMEs construction contractors according to their descending RII value are a lack of skilled human resources to handle the new technology (RII value of 0.780), a lack of access to new technology (RII value of 0.706), a lack of appropriate machinery and equipment (RII value of 0.686), and the problem of selecting proper technology (RII value of 0.608). The lack of technology hinders many enterprises, which in

turn prevents numerous MSMEs and contractors from starting up and growing. This finding is consistent with the findings of Amaradiwakara and Gunatilake (2017).

4.2.5 Open-ended questions

Open ended questions can generate unanticipated topics requiring supplemental questions. Over all, elucidating the open ended interview design, strategy and protocol used would boost confidence in rigor of this qualitative data collection as per best practices (Creswell& Creswell, 2018).

Open-ended questions were analysed according to their similarity and the number of respondents mentioned. For question number one the response of respondents was presented with the help of figures (figure 4.3) as shown below.

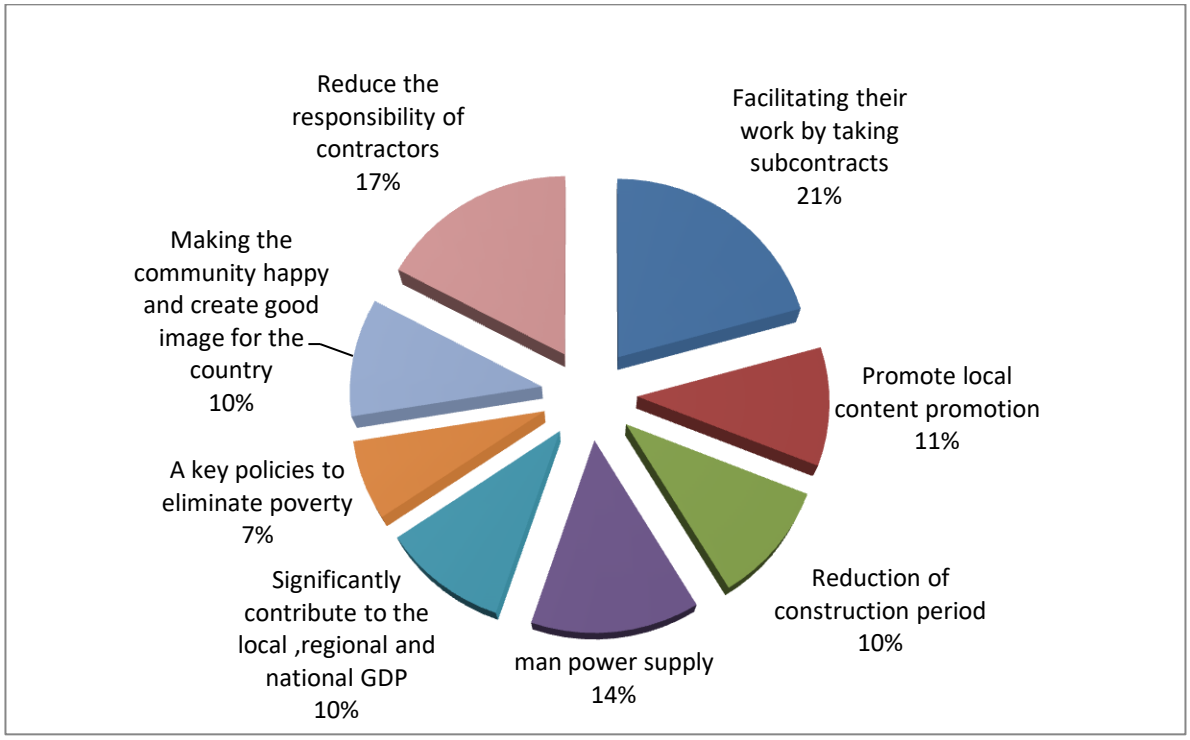

Figure 4.3: Shows the main roles of MSMEs contractors in their company (own survey, 2024).

The responses of respondents to the main roles of MSMEs contractors were described in the figure 4.3. According to the above figure, 21% of respondents said that facilitating their work by taking subcontracts are the main roles of the enterprise, while 17% and 14 % of

respondents said that reduce the responsibility of contractors and man power supply are the main roles of MSMEs contractors, respectively. The remaining respondents, who cover 11%, 10%, and 7 % of the sample population, said that promote local content promotion,making the community happy and create good image for the country, significantly contribute to the local, regional and national GDP, reduction of construction period, , and a key policies to eliminate poverty are the main roles of MSMEs contractors, respectively. This result is supported by Mamo A. (2019) and Arega A. (2016) who found that facilitating their work by taking subcontracts, man power supply and local content promotion rank on top being reported as the major roles of MSMEs contractors.

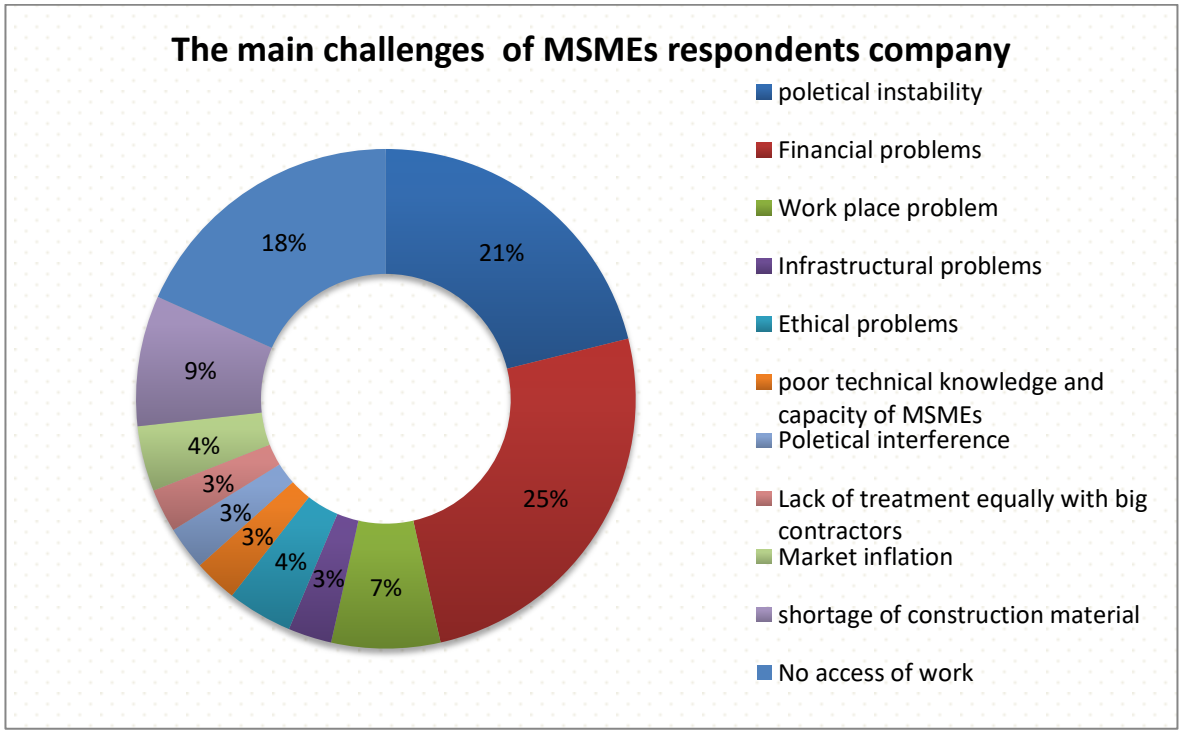

Figure 4.4 shows the main challenges and barriers of MSMEs respondents in their company (Own survey, 2024).

The responses of respondents to the main challenges and problems of MSMEs and construction companies were described in the above figure. According to the above figure, 25% of respondents said that financial problems are the main challenge of the enterprise, while 21% and 18% of respondents said that political instability and no access of work to run the business are the main challenges of MSMEs and construction enterprises, respectively. The remaining respondents, who cover 9%, 7%, 4%, and 3% of the sample

population, said that shortage of construction material, work place problems, market inflation, ethical problems, political interference, poor technical knowledge and capacity of MSMEs, infrastructural problems, and lack of treatment equally with large contractors are the main challenges of the company, respectively. Arega A. (2016) and Mosisa A. (2014) suggested the following challenges; lack of finance to run the project, financial management, not enough work, not working hard work, political instability, lack of skilled people and lack of experience. Like question number one, the responses to question number two were presented with charts, as shown below in figure 4.5.

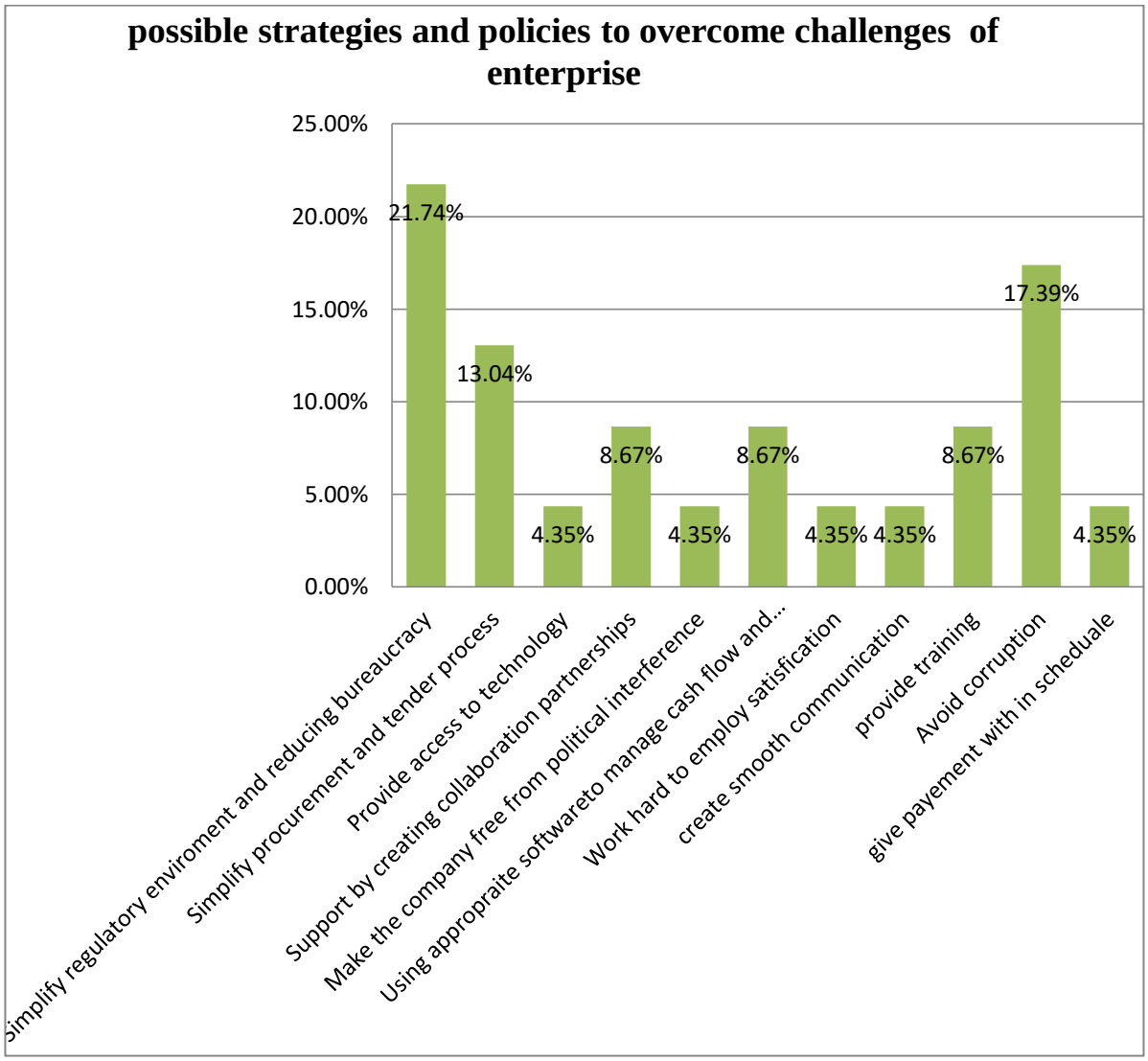

Figure 4.5: Possible strategies and policies to overcome the challenges of MSMEs (Own survey, 2024).

As the above figure indicates, 48.15% of respondents believed that simplifying the regulatory environment and reducing it were possible measurements for the cause of the failure of MSMEs construction enterprises in North Shewa Zone. The other respondents, who cover 17.39% of the total sample, believed that avoiding corruption would reduce the failure of MSMEs as construction contractors. The other respondents believed that simplifying the procurement and tender process, providing access to technology, supporting collaboration mainly MSMEs to MSMEs, making the company free from political interference, using appropriate software to manage cash flow, working hard to employ satisfaction, providing training, and providing payment with schedules were possible solutions to avoid the challenges and barriers of MSMEs and construction enterprises. This result is supported by Abera, A. (2012), Tasisa A. (2014), and Arega A. (2016) who found that access to raw materials, access to raw materials, training and capacity building, provide infrastructural facilities, reduce political interference, avoid corruption and simplify tender process reported as the major strategies and policies to overcome the challenges of MSMEs contractors. The third and last open-ended question for the respondents was: Who will be the most responsible body for reducing the above challenges? According to their response, the following analysis was made with the help of a pie chart.

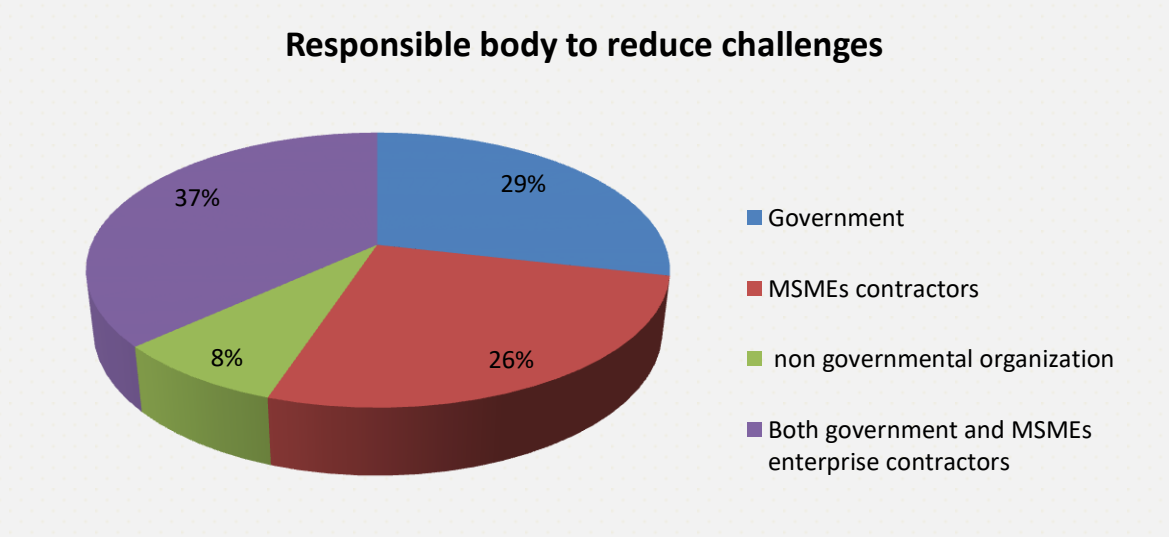

Figure 4.6: Responsible bodies to reduce challenges (Own survey, 2024)

The majority of respondents, who cover 37% of the sample population, confirmed that the responsible bodies to reduce the challenges of enterprises are both the government and the

enterprise because the challenges and problems are usually created by the government itself and the enterprises themselves. For example, late payment and policy regulation-related challenges are always happening on the government side. The remaining 29%, 26%, and 8% of respondents said that the government, enterprises themselves, and nongovernmental organizations are responsible for reducing the challenge of enterprises. Arega A. (2019) supported this finding. This result is supported by Arega A. (2016) who found that government, MSMEs contractors are the major responsible body for reducing the challenges of these enterprises.

4.2.6 Results and Discussion of the Case Studies

Four to six selected MSMEs contractors studied using a single case design, incorporating multiple data sources, documentation, observations, and interviews for triangulation (Yin, 2017). In these case studies, some projects in the North Shewa Zone that have been recently completed and in progress by Micro, Small, and Medium enterprise contractors are presented in order to have real information on the challenges. All the relevant data, like contract documents, progress reports, payment certificates, and final completion reports, were found in MSMEs performance reports. Used as a source of data, this helps to know the problems and barriers that will be the cause of MSMEs failures in the North Shewa Zone. The data collected by reviewing the payment certificates, progress reports, and completion reports shows the practical challenges of them, and this indicates that this research is the current issue in the study area. The desk studies were analysed from four projects that were executed recently by MSMEs contractors' in North Shewa Zone. Therefore, every four projects were analysed as follows:

4.2.6.1 Case study one

This case study presents the cause of the failure of MSMEs contractors' in North Shewa Zone by taking one project that was executed by one enterprise.

The basic information about this project is:

Project name: ANRS North Shewa Zone, H/Kesem Wereda, Gorfo clinic building projects

Contract amount: 3,445,000 Eth Birr

Commenced time: August 25, 2021

Contract time: 360 calendar days

Actual amount: 6,524,000 Eth Birr

Actual completion date: August 25, 2023

Delay time: 340 calendar days

Remark: incomplete

As stated in the project information above, the given project was delayed for 340 calendar days, but the actual project amount decreased rather than increased due to various reasons, as the performance report demonstrates. The first reason for these payments not being made on time is that the contract agreement pertaining to advance payment and payment states that the employer must pay the contractor within 30 days of the date of the contract signature, and payments to the contractor must be made within 10 days of receipt of the statement of work based on their contractual agreement to execute the work with in short period of time. The project file indicates that an advance payment was offered after 60 calendar days. In addition to the advance payment, the contractor's requests for the first and second payments of the project were not fulfilled, resulting in delays of 90 and 60 calendar days, respectively. Due to their inability to build the project with their own funds until payment is made, MSMEs contractors in the North Shewa Zone are forced to close their businesses as a result of this payment delay. Therefore, delayed payment from the client is the major cause of MSMEs' failures in the North Shewa Zone.

4.2.6.2 Case Study two

This case study aids in understanding the difficulty of obtaining funds for building construction projects. In order to explore this case study, an enterprise cannot complete a project. This is because the enterprise only won the bid and did not begin the work. The essential details of this project are as follows:

Project name: North Shewa Zone, Bulga Town Administration, office building

Location: Bulga town administration, Tulefa town

Contract amount: 1,950,000 ETB

Commenced time: January 12, 2023

Contract time: 180 calendar days

Remark: not carried out by this enterprise

Even if a company won the bid, it wouldn't begin work on the project because, as the company's performance report shows, it lacks the funds to begin work and accept advance payment. Moreover, because it doesn't have collateral, it can't obtain a loan that is affordable or readily available, and it is therefore unable to accept performance bonds. Therefore, the lack of access to funds is the major cause of the failure of MSMEs.

4.2.6.3. Case Study three

This case study is helping to understand the ethical problems of an enterprise. This is discussed by taking one project that was executed by this enterprise. The basic information about this project is:

Project name: Bulga town administration, disabled and elder residence house

Project location: Tulefa

Contract amount: 344,000 ETB

Commenced time: July 30, 2021

Contract time: 90 calendar days

Remark: not finished by this enterprise

According to the information above, the winning firm was unable to complete the project. The performance report of the North Shewa Zone enterprise contractor shows that this business vanished after receiving advance payments and the first payment. This company is prohibited from taking part in any additional government projects as a result.

4.2.6.4 Case Study four

This case study examines the reasons behind the failure of MSMEs in the North Shewa Zone construction industry by focusing on a single project that was carried out by a single enterprise. The essential details of this project are as follows:

Project name: Construction of a clinic project for the municipality

Project location: Ginager Town

Contract amount: 3,445,000 ETB

Contract time: 360 calendar days

Commenced time: January 20, 2022

Remark: incomplete

The enterprise that won this project was unable to finish it and was forced to terminate since he or she won the contract at a low price and could not carry out the work at that cost. As a result, the client gave the project to another enterprise and terminated it. This suggests that a company lacks understanding of contracting or cost estimation; mistakes in design documents; delays in payment; and material price escalation is the major barriers to the time and cost overrun for this project.

In summary, the case study mentioned above might provide a clear picture of the extent and severity of performance issues with regard to the timeliness, cost, and quality of building construction projects in the study area. Besides, the following points could be noted: all the projects used for the case study are suffering from poor performance. In addition, most of the major challenges and barriers observed in the projects are similar, like access to funds, ethical problems, delayed payments to contractors, late design review and approval, inaccurate cost estimation, and slowness in decision-making. Essentially, in order to significantly reduce their effects on the upcoming projects, the extent of the problem, as seen in the selected case study, requires that the issue be given the attention it deserves and that the key variables causing the problem be investigated from a wider perspective. Furthermore, the results obtained from the case study are likely the same as the investigation by the questioner, which strengthens the reliability.

4.2.7 Interview Reports

In order to triangulate and familiarize respondents with MSMEs contractors and other similar issues, the researcher conducted interviews with respondents in the areas of their goal, the role of MSMEs contractors in the building construction sector, constraints they face, how they strengthened to encounter their problems, and their future plans. It is understood from the interview reports that there are goals for MSMEs development in the country in the North Shewa Zone. In this case, the main goals of forming MSMEs as contractors in the study area are summarized as follows:

First, to create jobs for the unemployed and to provide economic support, the construction sector has the potential to create a significant number of job opportunities, especially for the local population, and contribute to the overall economic development and expansion of the construction industry in the study area. Second, empower individual operators who have

entrepreneurial skills. Third, establishing an environment is appropriate to the execution of operators with entrepreneurial skills. MSMEs contractors in the study area can face several constraints and challenges that may hinder their growth and performance.

The key constraints include: First, financing constraints: MSMEs contractors often face difficulties in securing adequate and timely financing, such as loans, credit facilities, and working capital, delay payments due to their small size and perceived higher risk. If they get a loan or credit from the government, they use it for other purposes rather than the already established goal. Second, technological limitations: MSMEs contractors have limited access to advanced construction technologies, equipment and machinery due to financial constraints and a lack of technical expertise. Their inability to invest in modern tools, software, and techniques can hinder their competitiveness and the quality of their work. Third, administrative and regulatory hurdles: MSMEs contractors may face difficulties in navigating the administrative and regulatory environment, such as obtaining permits, licenses, and approvals. Fourth, procurement and contract challenges: MSMEs may struggle to compete with larger firms for contracts due to their limited resources and experience.

With regard to the role of MSMEs contractors in the building construction sector, one of the foremost accomplishments of the sector is that it has alleviated poverty, enhanced project delivery, enhanced competitiveness, ,job creation, cost effectiveness and efficiency, and is adaptable to any changes in the industry. To strengthen MSMEs contractors and enhance their roles, create awareness and provide training, by providing working places, facilitating access to finance, promoting technology adoption and innovation, implementing mechanisms that improve business linkages through sub-contracting, reviewing and simplifying the regulatory framework, permits, and licensing requirements for MSMEs contractors, and reducing the administrative burden. Finally, the future plans of MSMEs and contractor firms are:

First, encourage the adoption of construction technology solutions, such as building information modelling and project management software. Second, develop a comprehensive digital transformation strategy for the MSMEs contractor ecosystem. Third, review and streamline the existing policies, regulations, and administrative procedures to create a more enabling environment for MSMEs contractors. Fourth, foster stronger collaboration and

knowledge sharing among MSMEs contractor associations, industry bodies, and government agencies. Support those young graduates who have graduated from TVET and other higher education institutions, organize them to join their own work and avoid the feeling of expectations from others, and develop their confidence to become responsible citizens of their country.

4.2.8 Reliability and Validity Analysis

Cronbach's alpha was also calculated as part of the reliability test to assess how valid the results were and whether similar results were found to generalize if the sample size was increased. A value of 0.7 or higher is a very good value that can lead one to say that the same results are found if this survey is carried out with a larger sample of respondents. The Cronbach's alpha was calculated for section 4 of the questions of the questionnaire using SPSS version 23. The results are as follows:

N of items = 79

Cronbach’s alpha = 0.933

The alpha value obtained is 0.933, and as this value is greater than 0.7, it is concluded that the questionnaire and results that had been established were reliable and that the results have given true and realistic findings.

4.2.9 Correlation Analysis

To further examine relationships between variables (Allen, 2017), bivariate correlations were conducted using Pearson’s r. There was strong negative correlation ($r = -0.584, p<0.01$) between challenges faced by MSMEs contractors and their self-reported achievement levels in addressing societal problems. This suggests greater challenges are linked to lower perceived achievements. A moderate positive correlation was found between effectiveness of policies and strategies and challenges faced ($r=0.424$, $p<0.05$).This relationship indicates more challenges experienced correlated with better policy supports being in place. Effectiveness of policies and strategies to enhance MSMEs contractors’ contribution and their self-reported achievement levels in addressing societal problems($r =0.163$, $p>0.05$). Effectiveness of policies and strategies to enhance MSMEs contractors’ contribution showed weak and insignificant correlations with their self-reported achievement levels in addressing societal problems.

Generally, these correlations provide initial support that key variables of interest in the study are interrelated as framed by prior research. Understanding connectivity between achievement, challenges faced, and policy and strategy dimensions enhances insight into dynamics impacting of MSMEs contractors.

4.2.10 Multiple linear Regression Analysis

This study used a multiple linear regression model to predict the level of challenges faced by MSMEs contractors. The prediction was carried out based on the effect of the six predictors/explanatory variables financial problems (FP), Management problems (MP), Ethical problems (EP), Infrastructural barriers (IP), Political ,regulatory and policy related problems(PRP) and Technological related problems (TP)**.** Besides, the coefficients for each explanatory variable generated from the model were subjected to a t-test, to test each of the hypotheses under study. The study hence came up with a model summary, the ANOVA, and the regression model confidence as presented in Tables 4.16, 4.17, and 4.18.

4.2.10.1 Model Summary

Table 4.16 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.858[a]	.735	.708	.38316

Predictors: (Constant), financial problems (FP), Management problems (MP), Ethical problems (EP), Infrastructural barriers (IP), Political ,regulatory and policy related problems(PRP) and Technological related problems (TP)

The value of adjusted R^2 from Table 4.16 shows .735 this indicates the independent variables (challenge factors) explain approximately 73.5% of the variance in dependent variables (level of challenges faced). The remaining 27.5% of the variation in rating the level of challenge faced by MSMEs contractors (LCR) was due to factors that are not included in this model, and the errors in the data collection process. Generally, 73.5% of the variance constitutes the final model formed by using the independent variables explained in the study. The findings suggested that the independent variables are significant issues require targeted solutions in the study area.

4.2.10.2 ANOVA

Table 4.17 ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.593	5	3.919	26.692	.000[b]
	Residual	7.047	48	.147		
	Total	26.640	53			
a. Dependent Variable: LCR (Level of Challenges faced by MSMEs contractors)						
a. Predictors: (Constant), Predictors: (Constant), financial problems (FP), Management problems (MP), Ethical problems (EP), Infrastructural barriers (IP), Political ,regulatory and policy related problems(PRP) and Technological related problems (TP)						

As can see the ANOVA model in Table 4.17 indicates that the regression model was too adequate. The F-ratio was 26.692 and the p-value was .000 since less than a .05, the model is statistically significant .In addition, from the above analysis of variance, the researcher could see the significant value of the model is below 0.05. Then the model is fit and all the variables (independent variable) could explain the dependent variables hence the model fitness is assured by the significance value. So, the researcher could go to the next step to see the model summary result which is the R^2 and adjusted R^2.

4.2.10.3 Coefficient Model

Table 4.18 Coefficient Model

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.395	.267		-3.519	.003
	FP	.332	.052	.338	9.253	.0001
	MP	.220	.036	.244	. 7.3735	.002
	EP	.255	.064	.268	6.656	.0001
	IP	.179	.070	.198	6.011	.003
	PRP	.298	.055	.300	8.215	.0001
	TP	.188	.065	.212	6.228	.003
a.dependent Variable: LCR (Level of Challenges faced by MSMEs contractors)						

The multiple linear regression model that was used $Y= \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_{4+} \beta_5 x_{5+}$

$\beta_{6\ X6+}$e Where dependent variable Y shows LCR (Level of Challenges faced by MSMEs contractors) independent variable x_1 shows Financial problems (FP), x_2 shows Management problems(MP), x_3 shows Ethical problems (EP), x_4 shows Infrastructural barriers(IP).x_5 shows Political ,regulatory and policy related problems(PRP) and x_6 shows Technological related problems (TP) and e is the error term. The result equation of the regression model from Table 4.18, coefficients of the independent variables were;

Y (LCR) = -.395+.332FP+.220MP +.255EP+ .179IP+.298PRP+.188TP+.267.

Coefficient table shows financial challenges and political, regulatory and policy related problems (PRP) have the largest positive Beta value (0.332) and (0.298) respectively and are highly significant. On the other hand, the other challenges are significant at moderate level.

4.2.11 Summary of data analysis

From section 4.2.2 – 4.2.5, the roles of MSMEs contractors in building construction sector, the current challenges and barriers faced by MSMEs contractors in building construction projects, policy and strategies to enhance MSMEs contractors' role to the building construction industry, interview reports and a case study analysis**.** From tables 4.10 – 4.15, list of finance problems, management skill problems, unethical conduct among some stakeholders**,** infrastructural barriers, political, regulatory, and policy-related problems, and technological problems for MSMEs contractors. Participants indicated which business skills are lacking, the prevalence of unethical conduct among some stakeholders, and how the labour base approaches technology as appropriate to MSMEs in their growth and development through job creation and employment creation. The demographic data indicates that the majority of respondents were those working in the public building construction sector, whereas most respondents had less than five years of experience in the construction industry. The data also revealed that respondents had limited experience in construction management, specifically financial and cash flow management. It also reveals the need to provide training and capacity building on construction management and the administration of financial cases.

Further, it showed that MSMEs contractors have huge challenges in our country in building projects, so provide policies and strategies to enhance MSMEs contractors' role to the

building construction industry. In the analysis, they strongly agree that payment is made late and further agree that they are faced with shortages of advance working capital and inflexible credit terms from suppliers and banks. It is agreed that loans are difficult to obtain from banks, and obtaining guarantees, insurance bonds, and sureties is a major barrier to getting enough working capital. Lack of construction management skills has been recognized as a major problem by the respondents, who strongly agree that finance and cash-flow management skills are ranking highly. Respondents further agree that the lack of contract administration, leadership and communication, financial control, and credit management skills are among the many challenges faced by MSMEs contractors. It is agreed by respondents that the self-fixing of rates by clients, who do not consider the market situation, is a major problem; clients and consultants do seek bribes from contractors, which is also a great problem. It is further agreed that consultants favour some contractors. The prevalence of unethical conduct among stakeholders and MSMEs contractors in carrying out their work is evident.

Finally, to reduce these challenges for enterprises, both the government and enterprises should provide policies and strategies to enhance their roles to building construction projects. Although it is clear that the hypotheses were well supported by the findings emanating from the survey and by the literature, there is a great concern with respect to the contributions and challenges of MSMEs in employment and value creation in the building construction project. There is also a concern about the existing problems and challenges in the development of MSMEs with respect to late payments and other stated problems. The next chapter will present the conclusions and recommendations resulting from the study.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

This chapter presents the conclusions and recommendations of the research, which are based on the results of the data analysis and discussion made in the previous chapter. The objectives of the research were to assess the policy and strategies to enhance MSMEs contractors' role to the building construction industry, to examine the roles of MSMEs contractors in the building construction sector, and to explore current challenges and barriers of MSMEs on building construction projects.

To achieve these objectives, the study used a desk study, an interview, and a questionnaire survey as research instruments. The information gathered from the survey was analysed using the relative importance index and correlated using the Pearson's coefficient of correlation .Based on the results of the analysis, the following conclusions have been derived and summarized in accordance with the objectives of the research:

The first objective of this research was to assess the policies and strategies to enhance MSMEs' role to building construction projects. The data was taken from literature and desk studies and ranked by respondents based on the frequency of occurrence. The results showed that financial support and assistance, simplifying the regulatory environment, encouraging collaboration and partnerships between MSMEs and large contractors, providing access to market opportunities, stream procurement and tendering processes, encouraging the adoption of technology and innovation, providing access to market opportunities, providing training and development programs, and improving infrastructure are the major policies and strategies to enhance the role to the building construction industry in North Shewa Zone.

The second objective of this research was to examine the role of MSMEs contractors in the building construction sectors in the study area. To achieve this, a questionnaire survey containing the role of MSMEs to the building construction industry, which was identified from the literature, and a desk study were ranked by respondents based on the frequency of occurrence. The results showed that job creation, local content promotion, enhance competition between contractors, improve quality in building construction projects, cost

effectiveness, and reduction of construction period were identified as major top six roles of micro, small, and medium enterprise contractors for the building construction industry. In addition, MSMEs contractors contribute to building construction projects in terms of time, cost, and quality aspects. To achieve this, a questionnaire survey was identified from the literature, and desk studies were ranked by respondents based on the frequency of occurrence. The results showed that the production of cost-efficient materials, reducing site additional costs, saving project costs, reducing project delay costs, and reducing project processing costs are the major five works that show a contribution to the cost aspects of building construction projects. While construction period reduction, reduced project processing time, reduction in production cycle time, and reduced work schedule tightness were other roles to the time aspects of building construction projects, related to quality aspects in building construction projects include; adherence to specification, being friendly to the environment, appropriate for tasks, durability, aesthetics, and free from defects are the results obtained from the analysis.

The third objective of this research was to explore the current challenges and barriers facing MSMEs in building construction projects. The questionnaire survey results indicated that financial problems, management problems, ethical problems, infrastructural barriers, political, regulatory, and policy-related problems, and technology-related problems are identified as major challenges and barriers for micro, small, and medium enterprise contractors that are working in the building construction industry in the North Shewa zone.

The third objective of this research was to assess the policies and strategies to enhance MSMEs' role to building construction projects. The data was taken from literature and desk studies and ranked by respondents based on the frequency of occurrence. The results showed that financial support and assistance, simplifying the regulatory environment, encouraging collaboration and partnerships between MSMEs and large contractors, providing access to market opportunities, stream procurement and tendering processes, encouraging the adoption of technology and innovation, providing access to market opportunities, providing training and development programs, and improving infrastructure are the major policies and strategies to enhance the role to the building construction industry in North Shewa Zone.

5.2 Recommendations

Based on the findings of the research presented in the thesis, here are some recommendations targeted at different stakeholder groups:

- Take into account providing tiered contracts that enable MSMEs to participate in skills transfer alongside larger contractors.
- Offer bonds or payment guarantees to help MSMEs contractors get the funding they require for projects.
- Streamline the procurement process and qualification criteria to increase MSMEs accessibility and competitiveness for opportunities.
- Introducing matching grant programs or credit lines with reduced interest targeted to the construction sector.
- Establish a national certification system with tiered qualifications to help formalize MSMEs contractors.
- Invest in strategic public infrastructure upgrades like transportation networks where MSMEs participation can be stimulated.
- Continue stakeholder engagements and impact assessments to refine policies based on evidenced feedback over time.
- Pursue available training programs to strengthen your technical and business management competencies.
- Consider specializing in viable industry niches or adopting innovative approaches to leverage opportunities.
- Partner or collaborate with others where possible to broaden your capabilities and access larger job opportunities.
- Participate actively in industry associations and policy consultations to advocate for your needs and help shape a more enabling environment.
- Proactively include MSMEs quota targets in your bidding documents for government contracts to promote their involvement in larger projects.
- Subcontract appropriate portions of work to competent MSMEs rather than trying to handle everything in-house, especially jobs requiring fewer resources.
- Consider alternate payment mechanisms for MSMEs subcontractors, like escrow accounts, that ease cash flow challenges throughout project cycles.

- Have a vendor prequalification and tiered bidding system that lowers financial and qualification hurdles for MSMEs to encourage participation.

Generally, survival, growth, and expansion of the MSMEs contractors are essential for economic growth, building infrastructure development, and job creation in North Shewa Zone. It is important and a priority to address the issues of access to finance, shortage of skills, and adequate support from the government.

5.3 Directions for further research

There are needs for further research. This will help to identify the challenges and contributions of MSMEs contractors on building construction projects, similar research will be conducted at all level to analyze all the contributions of MSMEs contractors in North Shewa zone and their critical challenges and barriers as well. In addition to that construction industry stakeholders were informed of the findings of this study in order for them to take an initiative to address these issues. The areas include:

I. Conduct a longitudinal study to examine how the challenges and contributions of MSMEs contractors in the construction sector evolve over an extended period of time in North Shewa zone.
II. Conduct a comparative study between MSMEs contractors in the construction sector and other industries.
III. Examine relationships between MSMEs contractors and suppliers through a social network analysis.
IV. Study innovation practices with in successful MSMEs contractor firms
V. Study skill requirements of MSMEs contractors relative to evolving construction methods.

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APPENDICES

Appendix-A: Questionnaire

Appendix-B: Interview check list

Appendix C: Checklist used for case study of study

Appendix-A: Questionnaire

ADDIS COLLEGE

COLLEGE OF GRADUATE STUDIES

(DEPARTMENT OF CONSTRUCTION TECHNOLOGY AND MANAGEMENT)

MSc Program in Construction Technology and Management

(Questionnaire)

Dear respondents,

The aim of this questionnaire is to evaluate the contribution, challenge and policy gap of Micro, Small and Medium enterprise contractors on building construction projects in North Shewa zone. This questionnaire is required to be filled with exact relevant facts as much as possible. All data included in this questionnaire will be used only for academic research and will be strictly confidential.

Sincerely

Researcher name: Abebayehu Debebe

Email: abebayehudebebe12@gmail.com

Advised by Semere Yilma (Phd candidate)

April, 2024

Part One: General Information: Please add thick mark (√) as appropriate:

1. Gender: ◯ Male ◯ Female

2. Type of Organization: ◯ Client ◯ large Contractor ◯Private Consultant

◯ MSMES contractor ◯ Government official

3. Typical of projects of organization: ◯ Public buildings ◯ private building ◯ others

4. Job title of the respondent: ◯ Project Manager/ deputy ◯ Site Engineer/ office engineer ◯ Organization Manager/ deputy ◯ others

5. Years of experience of the respondent: ◯ Less than 5 year's ◯ from 6 to 10 years

◯ From 10 to 15years ◯ Over 15 years

6. Level of education ◯ High school ◯ Diploma ◯Masters

◯ above masters ◯ others

7. A number of member in your company (for MSMEs contractors)……

Part Two: Questionnaire related to policy and strategies to enhance MSMEs contractors role to the building construction industry

In terms of MSMEs contractors how would you rate policies and strategies to enhance MSMEs role for building construction projects with regard to the following aspects?

Note; 1- Strongly agree 2-Agree 3- Neutral/Not sure 4- Disagree 5- Strongly Disagree

	Policies and Strategies to enhance MSMEs contractors role	1	2	3	4	5
1	Financial support and assistance					
2	Encourage the adoption of technology and innovation					
3	Provide access to market opportunities					
4	Encourage collaboration and partnerships between MSMEs and large contractors					
5	Provide training and development programs					
6	Simplifying Regulatory environment and reducing bureaucracy					
7	Streamline procurement and tendering processes					
8	Improve infrastructure					

If there is another strategy to enhance MSMEs role for building construction projects, please mention it.

……

……..::

Part Three: Question related to the role of MSMEs contractors in building construction sector

A. **Key MSMEs role to building construction projects**

MSMEs achievements from the perspective of building construction projects, below are numbers of contribution of MSMEs contractors to building construction projects taken from various literatures. From your experience, Please express your opinion based on the representative numbers listed below by marking (√) under each preference.

Note **;** 1- Strongly agree 2- Agree 3- Neutral / not sure 4- Disagree 5- Strongly Disagree

	Key MSMEs role for building construction projects	1	2	3	4	5
1	Local content promotion using local products					
2	Economic growth by providing services and products					
3	Triggers innovation and creativity					
4	Job creation					
5	Cost effectiveness					
6	Enhance productivity					
7	Ensure efficiency of construction process					
8	Adherence to local regulation					
9	Reduction of construction period					
10	Enhance competition between contractors					
11	Improve the linkages between diverse sectors					
12	Keep Environmental sustainability					
13	Improve quality in building construction project					

If there is another role of MSMEs contractors for building construction projects, please mention it.

……

……..::

B. <u>MSMEs' role to building construction projects in terms of time, cost, and quality aspects.</u>

From your experience, Please express your opinion based on the representative numbers listed below by marking (√) under each preference.

<u>Note</u>

1- Strongly agree 2- Agree 3- Neutral / not sure 4- Disagree 5- Strongly Disagree

No	MSMEs' contributions to building construction projects	1	2	3	4	5
	Quality aspects					
1	Adherence to the specifications					
2	Durability					

3	Appropriate for the task					
4	Free from defects					
5	Aesthetics					
6	Friendly to the environment					
	Time aspects					
1	Construction period reduction					
2	Reduces project processing time					
3	Reduction in production cycle time					
4	Reduce work schedule tightness					
	Cost aspects					
1	Production of cost efficient material					
2	Reduce site additional cost					
3	Reduce project delayed cost					
4	Saving project cost					
5	Reduce project processing cost					

Part Four: the current challenges and barriers faced by MSMEs contractors in building construction projects.

To what extent do you agree the following barriers and challenges faced by micro, small and medium enterprise contractors on improving the existing weak local building construction industry. In terms of MSMEs contractors how would you rate financing problems as faced by MSMEs contractors with regard to the following aspects?

Note

1- Strongly agree 2- Agree 3-Neutral/Not sure 4- Disagree 5- Strongly Disagree

	Financial problems	1	2	3	4	5
1	Inflexible credit terms from suppliers					
2	Problems in obtaining guarantee bonds sureties & insurance bonds					
3	High tendering cost					
4	Problems in obtaining loans to finance projects					

5	Delay in collecting payments					
6	Inflexible credit terms from banks					
7	poor estimation practices					
8	Low profit margin due to competition					

In terms of MSMEs contractors how would you rate lack of business management skills in running their businesses with regard to the following aspects?

Note; 1- Strongly disagree 2- Disagree 3- Neutral/Not sure 4- Agree 5- Strongly agree

no	**Management problems**	1	2	3	4	5
1	Book keeping (accounting)					
2	Contract administration					
3	Leadership & communication					
4	Finance management					
5	Site management					
6	Contract document interpretation					
7	Financial controls					
8	Cash-flow management					
9	Credit management					
10	Time management					

In terms of MSMEs contractors how would you rate the following unethical behaviour with regard to the following aspects?

Note; 1- Strongly disagree 2- Disagree 3- Neutral/Not sure 4- Agree 5- Strongly agree

no	**Ethical problems**	1	2	3	4	5
1	Colluding of tenders					
2	Client influence in awarding contracts or self-fixing of rates by the client					
3	Influencing tender results using corrupt ways by large contractors					
4	Consultants seeking bribes from contractors					
5	Clients seeking bribes from contractors					
6	Stealing of material and equipment					

In terms of MSMEs contractors how would you rate the following infrastructural barriers with regard to the following aspects?

Note; 1- Strongly disagree 2- Disagree 3- Neutral/Not sure 4- Agree 5- Strongly agree

no	**Infrastructural barriers**	1	2	3	4	5
1	Interruption of electricity supply					
2	Insufficient access of water supply					
3	Poor road infrastructure					
4	Lack of sufficient and quick transportation service					
5	Lack of appropriate waste removing technique					

In terms of MSMEs contractors how would you rate political, regulation and policy related problems as faced by MSMEs contractors with regard to the following aspects?

Note ; 1- Strongly agree 2- Agree 3-Neutral/ not sure 4- Disagree 5- Strongly disagree

	Political, regulatory and policy related problems	1	2	3	4	5
1	Political instability					
2	Lack of government support					
3	Multiple taxation					
4	Bureaucracy in company registration and licensing					
5	Lack of accessible information on government regulation and policy that are relevant to the business					
6	The negative attitude on MSMEs building contractors					
7	Change in government regulation and policies					
8	Non-payment of interest on delayed payment					
9	Suspension of projects of previous government					
10	Awarding contracts to incompetent participants					

In terms of MSMEs contractors how would you rate technological related problems as faced by MSMEs contractors with regard to the following aspects?

Note; 1- Strongly agree 2- Agree 3-Neutral/ not sure 4- Disagree 5- Strongly Disagree

	Technological related problems	1	2	3	4	5

1	Lack of skilled human resources to handle the new technology					
2	Lack of appropriate machinery and equipment					
3	Lack of access to new technology					
4	Lack of finance to acquire new technology					
5	Unable to select proper technology					

General question

1. What are the main roles of MSMEs contractors for your company?

……

…… .... ::

2. What are the main challenges and barriers which usually happen in your company?

……

…….::

3. What are the possible policies and strategies to solve the challenges of MSMEs contractors in your construction companies?

……

…….::

4. Who will be the most responsible body for improving the above challenges?

……

…….::

Thank you too much for your cooperation!

Appendix-B: Interview Checklist

1. What are the major goals of forming MSMEs contractors in the study area?
2. Do you believe MSMEs contractors play a role in building construction sector? Tell me more, please.
3. What constraints did they face?
4. How could MSMEs be strengthened to enhance their role?
5. What are the future plans to support MSMEs contractors?

Appendix C: Checklist used for case study of study

The following are the points used for case study in the study projects to collect the necessary data;

- Reviewing the feasibility study and tender documents
- Checking contract agreements
- Payment certificates
- Monthly progress reports
- Meeting minutes studied
- Inspection procedures and formats
- Completion period of projects
- respondent referrals