

Micro and Small Enterprises' Development in the Ethiopian Construction Industry: The Challenges and Improvement Regulatory Framework

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Abstract: The purpose of this study is to assess the challenges and develop a regulatory framework for the sustainable development of micro and small enterprises (MSE) in the construction industry. A structured questionnaire was used to collect the quantitative data and a semi-structured interview was conducted to get detailed insight into the MSE development. Descriptive analysis was used for the quantitative data analysis and the qualitative data was analysed thematically focusing on the challenges and applicable regulatory instruments. The identified internal challenges are associated with management practice, financial capacity and technical capacity. The external challenges are ineffective policy support and regulation, weak registration practice and demand and price fluctuation. Considering these findings, an improvement regulatory framework with four pillars was developed. The pillars of the improvement regulatory framework are registration and follow-up, access to markets, access to finance, and training and advisory. The identified internal and external challenges are interrelated and situation-dependent; therefore, continual monitoring and controlling of the operating environment would help to ensure the sustainable development of MSE. The nature of the construction industry in developing countries shares common characteristics, hence the findings and the developed improvement framework can be extended to similar contexts.

Keywords: Micro and small enterprises, Ethiopian construction industry, Regulatory framework, Managing challenges, Sustainable growth

INTRODUCTION

Construction organisations' capacity enhancement is among the determinant factors of construction industry development (Ofori, 1980; Construction 21 Report, 1999; Construction Industry Review Committee, 2001). Enhancing the capacity of organisations helps to improve the different practices in the industry as competitive organisations can develop capabilities to adopt good practices. Enhancing capacity should necessarily incorporate the development of all levels of construction organisations to enhance the competitiveness of the industry comprehensively (Kumaraswamy, 2006). Hence, as micro and small enterprises (MSE) are the bottom-level organisations in the industry, it is important to ensure their sustainable development. The importance of the MSE in different sectors

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is internationally acknowledged (Smith and Whittaker, 1998; Singh, Garg and Deshmukh, 2008; Endris and Kassegn, 2022), but there exists a problem in defining MSE (National Credit Regulator, 2011). Due to the absence of a commonly agreed international definition of MSE, different countries adopt their own approaches (Smith and Whittaker, 1998; Gibson and Van der Vaart, 2008). However, the various definitions of MSE use three basic criteria: number of full-time employees, total assets and total annual turnover (Ministry of Urban Development and Housing, 2016). These three criteria may be applied either jointly or separately. Adopting appropriate and clear definitions and incorporating them in the registration system is important to devise effective support and intervention strategies in MSE development.

MSE have a substantial contribution in ensuring the continual development of the construction industry as they are the future larger companies. In addition, they contribute to the national economy through creating jobs (Nicholas and Fruhmann, 2014). However, in many cases, their development is hampered by a number of internal and external challenges (Irljayanti and Azis, 2012; Wang, 2016). These challenges affect the contribution and performance of MSE directly and indirectly. The internal challenges should be controlled by the MSE. However, the external challenges need intervention by the concerned stakeholders. In this respect, the role of government in controlling external challenges is significant through creating a conducive business environment by employing effective regulation and also in supporting the growth of the MSE. Effective intervention needs the understanding of the challenges and the development of appropriate improvement mechanisms that suit the context. It is in this light that this study focuses on assessing the challenges and developing a regulatory framework for the sustainable development of MSE in the construction industry.

LITERATURE REVIEW

The perception towards the benefits of MSE development has two dimensions, i.e., considering them as an incubator for future larger companies and as a job creation mechanism. The level of emphasis given to either of these dimensions determines the support and intervention mechanisms. As indicated by Tshikhudo (2016), the promotion of the development of MSE will have a long-run effect on poverty alleviation, job creation and encourage entrepreneurship. Considering MSE as a job creation mechanism only can result in a proliferation of many MSE without a vision to grow and this affects their sustainability in the market. Hence, there has to be a balance in the perception towards the two dimensions. Sustainable development of MSE can be characterised by an acceptable level of attrition and a reasonable pace of growth, i.e., transition to the next category of enterprises. Ensuring this sustainable development needs understanding the potential challenges and the improvement mechanisms. The potential challenges can be categorised into internal and external. The internal challenges are associated with the different capacity dimensions: management practices, financial capacity and technical capacity. These dimensions of capacity are interrelated (Bajracharya et al., 2018) and are affected by different external factors (Tang and Ogunlana, 2003).

Common causes for the failure of construction organisations are human capital issues, macroeconomic issues, adaptation to market conditions and budget issues (Wong and Ng, 2010). Problems of local contractors in developing countries are lack of qualified manpower, limited access to working capital, shortage of

materials and machinery, and poor utilisation of modern technologies (Hillebrandt, 1999; International Growth Centre, 2012). The major institutional challenges facing contractor development are regulatory framework, limited training institutions, management know-how, lack of drive to learn, timely payment to contractors by clients, procurement expertise, absence of reliable credit facilities, absence of equipment pools, corruption syndrome, limited research and information and occupational health and safety concerns (Kiggundu, 1999). These are challenges for construction firms regardless of their size. Studies conducted on challenges specific to MSE in different countries reaffirm these. Dalitso and Peter (2000) identified different barriers and constraints faced by MSE in Ghana and Malawi which are lack of entrepreneurial and business management skills and training, lack of access to finance, lack of access to appropriate technology, regulations and rules that impede the development of the sector and weak institutional capacity. Assefa (2014) identified the key constraints to MSE growth in Ethiopia as access to finance, collateral challenges, marketing challenges, working space constraints, capital goods and machinery challenges, licensing and registration challenges, attitudinal challenges and institutional coordination problems. Similarly, Mosissa (2013) identified operational challenges of MSE in Ethiopia as lack of finance, limited skills in construction management and prevalence of unethical conduct.

The appropriateness of the mechanisms for enhancing capacity is determined by the contextual scenario. Despite the relative difference, the mechanisms of assistance practised by different countries for small-scale contractor development programmes are financial support, providing projects, training and advice and supplying material and equipment (Ofori, 1999). However, such help by the government should not create much dependency and it should be monitored and adjusted as the context changes. In addition to facilitating, promotional and supporting efforts of the government, the enterprises also have to make their share of effort in enhancing their capacity to cope with the changing operating environment. Organisations should continually review and utilise the opportunities to improve their success (Abraham, 2003).

As indicated earlier, the common challenges are identified by previous studies. However, detailed characterisation of the challenges will widen the knowledge area; classification of the challenges will help to understand their nature. Similarly, the common MSE development approaches are indicated by the previous studies. However, appropriately framing the development pillars and associating the pillars with the relevant regulatory bodies and regulatory instruments will help to ensure the sustainable development of the MSE. Thus, this study focuses on addressing these two specific objectives.

METHODOLOGY

Both quantitative and qualitative research approaches were applied to achieve the research objectives. In assessing the internal challenges, we adopted three dimensions: (1) management practice, (2) financial capacity and (3) technical capacity. The potential external challenges of MSE development were identified through a literature review and the underlying dimensions were identified through factor analysis as discussed in the next section. A structured questionnaire was developed to assess the challenges. A focus group discussion was also conducted and comments from professionals were considered in finalising the questionnaire.

In determining the sample size, the suggestion of Gay, Mills and Airasian (2012) was used which suggests beyond a certain point, at about 5,000 units or more, a sample of 400 people is adequate. The number of MSE in the country is more than 5,000. Thus, a total of 425 was considered for this study. Purposive sampling was adopted depending on the accuracy of the addresses provided in the government register. A total of 346 questionnaires were duly completed which resulted in an 81.41% response rate among which 169 are micro-enterprises and 177 are small enterprises. Experience-wise, it was found that 78% of them have 5 years and fewer years of experience, 21.1% have 6 years to 10 years of experience and 0.9% have 10 years to 15 years of experience.

Three groups were targeted for the interview: the MSE, major public clients and government departments engaged in MSE development. The semi-structured interview focused on the overall performance and issues related to the challenges faced by MSE, their market share and the general support mechanisms and monitoring and controlling of the support and regulatory practice. Relevant documents were collected from the concerned government departments.

Two analysis techniques were employed for the quantitative data depending on the size of the variables. The first category is the mean score; this was used to rate the different dimensions of the research constructs, i.e., rating level of the practice and level of challenges on a 5-point Likert scale. The questionnaires were completed by the representative of MSE; hence, the unit of analysis is the number of MSE. The mean value of responses is not a whole number, hence for interpretation purposes, mid-points of two adjacent scales were considered (Tripathi and Jha, 2017). Therefore, for interpretation, the adopted range of mean scores are as follows: $\mu \geq 4.5$ (Very High/Excellent), $4.5 > \mu \geq 3.5$ (High/Good), $3.5 > \mu \geq 2.5$ (Moderate/Average), $2.5 > \mu \geq 1.5$ (Low/Poor) and $\mu < 1.5$ (Very Low/Very Poor).

The second category is where there are a large number of variables, in such case, factor analysis was conducted on the following, e.g., management practice and external challenges. In testing the appropriateness of the data for factor analysis, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted. The minimum suggested standard for KMO is 0.5 (Hair et al., 2010; Field, 2013). Bartlett's test of sphericity shows whether the correlation matrix is significantly different from an identity matrix. For the data to be suitable for analysis, Bartlett's test of sphericity has to be significant (Field, 2013). The KMO was found to be 0.961 for management practice and 0.872 for the external challenges which are above the minimum and Bartlett's test of sphericity is found to be significant. To examine the internal consistency of the scale, the Cronbach's alpha (Ca) test was performed. The results are 0.963 for management practice, 0.79 for financial capacity-related, 0.893 for technical capacity and 0.868 for external challenges respectively. Cronbach's alpha value of 0.7 or higher is considered acceptable; hence, these results indicate that there is greater internal consistency in the scale.

The qualitative data was analysed focusing on different themes related to the research's specific objectives. Finally, a focus group discussion was held on the developed regulatory framework with professionals from different backgrounds and the comments were incorporated.

ANALYSIS AND DISCUSSION

The implementation of MSE development recommendations to mitigate the challenges involves two major approaches, i.e., voluntary and mandatory approaches. The challenges are interrelated; internal challenges can be the manifestation of external challenges, e.g., the financial factors are majorly associated with external challenges. Internal challenges can be controlled by the MSE through the wilful implementation of the best practice recommendations. Though it is difficult to clearly separate them both, the classification of the challenges will help to devise appropriate and effective intervention mechanisms.

MSE's Internal Challenges

The dimensions adopted to assess the internal challenges are management practice, financial capacity-related and technical capacity-related.

Management practice

The mean scores in Table 1 show that while the majority of the variables are average, 13 variables are slightly larger than the average. However, the interview findings indicate that the management practice is poor. The factor analysis has resulted in two underlying components with a cumulative variance of 62.81%. Seven practice areas were found to be cross loaded under the two components. Management practice areas are correlated (Ramirez, Alarcón and Knights, 2004), for instance, monitoring and controlling of performance of the enterprise determine the response to changes and in turn, the response to change is affected by the effectiveness of the organisation structure. Consequently, the cross-loading is logically acceptable as these areas are explicitly or implicitly related to the extracted components. The cross loaded items were not included in factor interpretation. Though these items were excluded due to statistical reasons they need improvement as they would help the enterprise to mature and develop. To represent the variables converged together, the components are named as; Component 1 "Organisation structure and project management" and Component 2 "Coping with the competitive business environment".

Table 1. MSE's management practice

Management Practice	Mean	Rank	Factor Analysis	
			Component 1	Component 2
Contract document interpretation ability	3.42	16	0.736	
Cash-flow management ability (i.e., ensuring uninterrupted supply of working capital)	3.33	19	0.776	
Inventory management ability	3.35	18	0.780	
Credit management ability	3.30	20	0.693	

(Continued on next page)

Table 1. *Continued*

Management Practice	Mean	Rank	Factor Analysis	
			Component 1	Component 2
Time management ability	3.52	11	0.710	
Effective organisation structure (clarity and effectiveness of division of duties and responsibilities)	3.52	12	0.762	
Leadership ability	3.61	5	0.716	
Effective communication ability	3.70	1	0.591	
Training and development of employees	3.23	21	0.621	
Commitment of the enterprise members	3.52	13		0.588
Monitoring and controlling of performance of the enterprise	3.49	14	0.522	0.561
Good record-keeping/ documentation	3.54	9	0.628	
Response to changes	3.56	8	0.503	0.572
Implementation of health and safety issues	3.22	22		0.570
Adaptability to the changing environment (i.e., working in a different geographical location/zone than area of establishment)	3.54	10		0.768
Readiness to handle increased size of projects	3.69	2		0.804
Readiness to handle increased number of projects	3.63	4		0.805
Project planning ability	3.64	3	0.523	0.649
Project estimating ability	3.57	7	0.596	0.567
Appropriate accounting practice	3.43	15	0.570	0.581
Strategic planning (i.e., understanding the business environment and forecasting the future)	3.42	17	0.523	0.611
The ability to standardise processes to increase efficiency and productivity	3.60	6	0.510	0.604
Variance explained (%)			33.82	28.99

Management practice is the application of a broad range of skills, management knowledge and experiences for efficient and effective delivery of the process. To organise and run the business process effectively and efficiently, MSE need management capability (Singh, Garg and Deshmukh, 2008). The expected management practice level is related to the size of the companies that would match the size and complexity of the projects. Thus, the selected knowledge and skills to assess the practice were limited to specific areas. As explained by Ofori (1999), a contractor development programme must enable the enterprise to mature and develop commercial, managerial and administrative skills, credibility in commercial circles and experience in pricing complete contracts while accepting increasingly greater risk and contractual responsibility.

Organisation structure and project management

This component includes contract document interpretation ability, cash-flow management ability, inventory management ability, credit management ability, time management ability, effective organisation structure, leadership ability, effective communication ability, training and development of employees and good record keeping/documentation.

The majority of the MSE are cooperatives, hence, developing an effective organisation structure, i.e., clearly defining the duties and responsibilities of the partnering member in the enterprise, is important. During the interview, it was found that lack of clarity regarding the roles of the partners is one of the sources of conflict among the members. The performance of MSE is associated with the nature of the organisation structure, e.g., a small number of employees and a flat organisational structure, reflecting a short-term business orientation (Lijauco et al., 2020). Improving this needs leadership ability and it is also important to identify the skills gap and fill it through training and development. Access to the market is one of the important dimensions for the development of MSE. The main way of getting a project in the construction industry is highly competitive, hence, bid/contract document interpretation ability and estimation skills are important knowledge areas. Improving estimation practice is highly associated with good record-keeping and documentation practice.

After getting a project, success in completing the project is determined by other factors such as cash-flow management ability, inventory management ability, credit management ability, time management ability and effective communication ability. As underlined by Tshikhudo (2016), the critical attributes required by MSE to have better performance, among the different management practices, are producing quality work, good cash flow management, good contractual understanding, having a business plan, effective communication channels, maintaining good relationships with clients, proper record keeping, sensible operating costs, recruiting qualified staff and availability of effective marketing strategies. Similarly, Muriithi (2017) indicated that poor management is the challenge faced by MSE in African countries that arises from the fact that most MSE owners lack managerial expertise. Irrespective of the company size, as a project-based company, any construction company needs to build an effective project management system.

Coping with the competitive business environment

This component includes the readiness to handle an increased number of projects, implementation of health and safety issues, adaptability to the changing environment (i.e., working in a different geographical location/zone than an area of establishment), readiness to handle increased size of projects and commitment of the enterprise members.

One of the purposes of MSE business is to be an incubator for the future larger companies which is a key contribution to the development of the construction industry. Most of the variables under this component: readiness to handle increased number of projects, adaptability to the changing environment and readiness to handle the increased size of projects are important to improve strategic management practice. Developing and maintaining good strategic management practices is important for the MSE to cope with the competitive business environment (Appels, 2010; Adendorff, Appels and Botha, 2011). Most construction MSE can hardly demonstrate the ability to meet promotion criteria such as management competencies, capacity, training and innovativeness which would enable them to compete in a growing construction economy (Gasa, 2012). This is majorly affected by the commitment of the enterprise members.

Financial Capacity-Related Factors

This dimension assesses the financial capacity of the enterprises. Financial capacity is the ability to finance projects and arrange financial resources to run the business. As indicated in Table 2, the finding indicates payment delay by the client is the common practice with a mean value of 3.75. This is among the challenges that affect the performance of the MSE. Unlike the larger companies, MSE have no option as sources of finance; hence, this practice needs to be improved. Similarly, the availability of credit-providing institutions for MSE and the ability to own/rent appropriate machinery and equipment is not satisfactory. This shows that access to finance is a challenge which limits the financial capacity of the MSE (Tshikhudo, 2016).

Technical-Related Factors

Technical capacity refers to the equipment owned and related operating staff with the required skills to efficiently utilise the equipment, expertise in work methodology, level of standardisation and the ability to foresee technological adoptions to maintain reputability. As the finding in Table 2 indicates, experience/knowledge is not a problem with a mean value of 3.65. This result is consistent with the response to one general question, soliciting as to whether there is a member among the cooperative partners with an educational background relevant to construction. It was found that among the 346 enterprises, 87% of the enterprises have at least one member with an educational background relevant to construction. However, this seems to contradict the other factor, the ability to efficiently utilise machinery and equipment is average with a mean value of 3.29. Similarly, the efficiency of the enterprise in integrating new technology into the business system and process is average with a mean value of 3.17. From this finding, it can be inferred that though the members have an educational qualification, they need specialised training to

be effective in utilising the resources. In addition, it is indicated that the mean value for owning the appropriate machinery and equipment is 3.02 which is average. This is associated with the above dimension, which shows that access to finance is a challenge which limits the financial capacity of the MSE.

Table 2. Financial and technical capacity-related factors

Financial-Related Factors	Mean	Rank
Adequacy/availability of credit-providing institutions for MSE	2.68	6
Collateral requirement to get credit	3.24	4
Level of interest rate	3.38	2
Requirements to get an advance payment	3.35	3
Payment delay by the client	3.75	1
The ability to own/rent appropriate machinery and equipment	3.17	5
Technical-Related Factors	Mean	Rank
Efficiency of the enterprise in integrating new technology into the business system and process	3.17	4
Owning the appropriate machinery and equipment	3.02	5
The ability to efficiently utilise machinery and equipment	3.29	3
Adequacy of technical staff	3.43	2
Experience/knowledge of the staff	3.65	1

MSE's External Challenges

The mean scores in Table 3 indicate the effect of the majority of the variables is high. The factor analysis resulted in three underlying components with a cumulative variance of 55.1%. The three factors found to be underloaded were project location problems, corruption and negative attitudes towards MSE. The underloaded variables were excluded from the factor interpretation. Though these items were excluded due to statistical reasons, they are among the challenges that affect MSE development, especially as the ranking in Table 3 indicates corruption is the second top factor. The interview results also indicated that corruption is a major challenge. This is consistent with previous studies, Muriithi (2017) indicated that corruption is among the major challenges facing MSE businesses in Africa. This ill practice forces MSE to divert their well-intended finances to non-financial activities. To represent the variables converged together, the components are named as Component 1 (Ineffective policy support and regulation), Component 2 (Weak registration practice) and Component 3 (Demand and price fluctuation).

Table 3. External challenges to MSE development

External Challenges to MSE Development	Mean	Rank	Factor Analysis		
			Component 1	Component 2	Component 3
Demand fluctuation; fluctuation of project availability	3.80	3			0.798
Price fluctuation (i.e., material price, labour, etc.)	4.16	1			0.859
Project location problem; influence of project location other than an area of the enterprise's establishment	3.29	13			
Corruption	4.05	2			
Bureaucracy during registration and renewing license	3.64	6		0.554	
Political instability	3.70	4	0.687		
Problems in creating interlinkage with other institutions	3.40	11	0.623		
Ineffectiveness of government policy and regulation	3.53	8	0.751		
Lack of satisfactory government support, e.g., lack of mentoring, insufficient award of contract/works	3.66	5	0.631		
Political intervention	3.21	14	0.608		
Negative attitude towards MSE	3.36	12			
Intense competition	3.57	7		0.579	
Registration and certification problem; tough requirement to upgrade	3.40	10		0.851	
Lack of periodical discussion with concerned stakeholders on the engagement condition of MSE	3.50	9		0.712	
Variance explained (%)			21.37	19.41	14.32

Ineffective policy support and regulation

This component includes political instability, problems in creating interlinkage with other institutions, the ineffectiveness of government policy and regulation and lack of satisfactory government support, e.g., lack of mentoring, insufficient award of contracts/works and political intervention.

Effective policy support and regulatory system that improve strategic vision of the MSE is important. This is supported by previous studies, e.g., Didibhuku and Mvubu (2008) indicated that inadequate support from the government is one of the challenges of MSE development. Bakar et al. (2011) also noted that political stability and peaceful environment are among the success factors of MSE development. Muriithi (2017) also underlined the importance of government support for the development of MSE. These challenges are associated with the general challenges in the industry. The national construction policy outlines the weaknesses, problems and performance constraints of the construction industry as low capacity and capability of local contractors and consultants, erratic work opportunities/demand, ineffective procurement systems, corruption, lack of institutional support mechanisms, poor working environment, weak regulatory framework, low productivity and quality and low technological base (Ministry of Urban Development and Construction, 2013). Thus, it is important to give due attention to the effectiveness of the policy support and regulatory system.

Weak registration practice

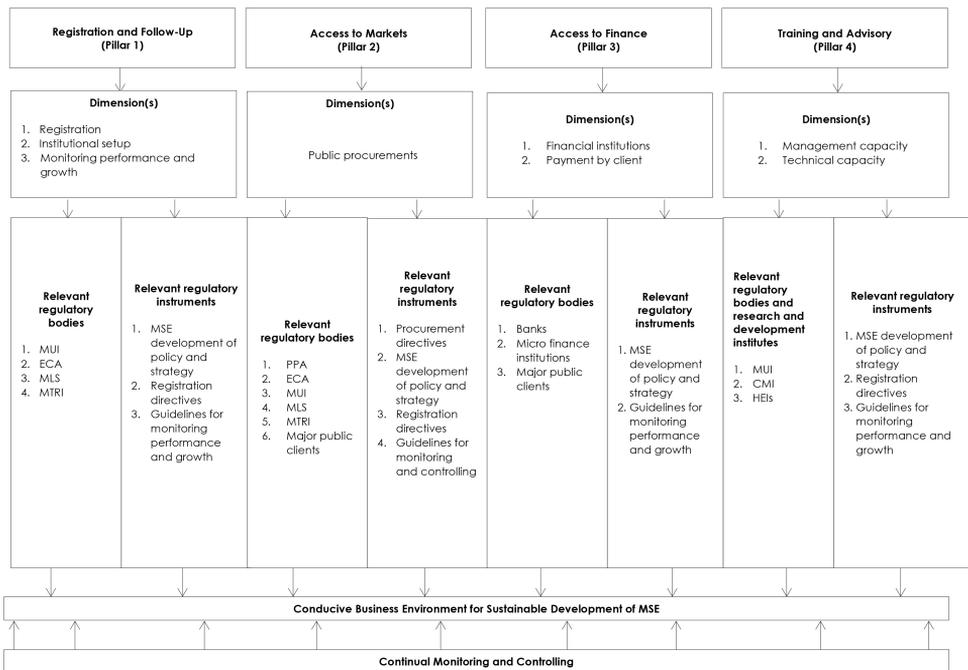
This component includes bureaucracy during registration and renewal of licenses, intense competition, registration and certification problems – tough requirements to upgrade, and lack of periodical discussion with concerned stakeholders on the engagement condition of MSE. It is important to revisit the registration system to align with the classification of MSE. The experience of other countries shows that the MSE development programmes are aligned with their registration system (CIDB-South Africa, 2011). This is important as it can be a medium for both the enterprise and the concerned government bodies to monitor and control the progress/growth of the enterprises. Periodical discussion with concerned stakeholders on the overall MSE business is important to devise appropriate and timely intervention. The findings indicated that the MSE should form an association like other business entities in order to have a common voice and address their interest.

Demand and price fluctuation

This component includes demand fluctuation (fluctuation of project availability) and price fluctuation (i.e., material price, labour, etc.). Access to the market and getting a project are key for the sustainability and growth of enterprises. However, the findings indicate that it is very difficult to get a project; among the 346 MSE, 49% of the enterprises were found to be temporarily inactive or totally inactive. During the interview, a majority of the respondents raised common issues associated with the difficulty of getting a project, due to fierce competition or corruption. They are not able to get an adequate number of projects to run the enterprise actively throughout the year. This shows demand fluctuation and it is associated with the general economy and the price fluctuation in the industry.

Regulatory Framework to Ensure Sustainable Development of MSE

There are some frameworks for MSE development, e.g., the Organisation for Economic Cooperation and Development's (OECD) small and medium enterprises policy index (OECD et al., 2020). However, these are generic and not specific to the construction industry. Hence, it is important to develop MSE development framework specific to the construction industry. The findings were used as input to develop the regulatory framework. Starting with defining the pillars, four steps were adopted in developing the framework. The adopted pillars are registration and follow-up, access to markets, access to finance and training and advisory. After defining the pillars, the next activities were defining the dimension(s) of the pillars; identifying the relevant public bodies and indicating the relevant applicable regulatory instrument(s). The details of the developed regulatory framework are indicated in Figure 1. Finally, a focus group discussion was held on the developed regulatory framework with professionals from different backgrounds and the comments were incorporated.



Notes: MUI = Ministry of Urban and Infrastructure; CMI = Construction Management Institute; HEIs = Higher education institutes; ECA = Ethiopian Construction Authority; MLS = Ministry of Labour and Skills; PPA = Public Procurement Authority; MTRI = Ministry of Trade and Regional Integration.

Figure 1. Regulatory framework to ensure sustainable development of MSE

Registration and follow-up

Registration and follow-up is an important pillar for the development of MSE which is one indicator of government's responsiveness and it has three dimensions: registration system, institutional setup and monitoring performance and growth.

The definition of MSE and the registration system have a significant role in development of the enterprises. According to the Ministry of Urban Development and Housing (2016), the importance of defining MSE is:

1. To create a basic framework to provide differentiated support to micro and small enterprises,
2. To create a uniform basis for institutions mandated to provide support to micro and small enterprise development,
3. To ensure that data and information to be collated and shared on micro and small enterprises have a common ground,
4. To enable the monitoring and evaluation of the various kinds of support to be provided to MSE using common criteria and
5. To harmonise the national definition of micro and small enterprises with the international definition.

Registration provides information to facilitate regulation and management of the industry, generate revenue for capacity development programs and facilitate procurement as a general prequalification criterion. Registration also helps to set targets for firms and professionals to grow. Hence, the definition and classification of MSE have to be aligned with the registration directives. It will help to devise appropriate intervention mechanisms for the respective categories.

One of the duties of the Ministry of Urban and Infrastructure, specifically its affiliate, the Ethiopian Construction Authority (ECA), is registering and issuing certificates of competence for professionals and registering and determining the grades of organisations. Hence, ECA has a significant stake in this regard. Concerning the institutional setup, the MSE development needs a concerted effort from the stakeholders. MSE development policy and strategy of Ethiopia reaffirms this, the policy document also shows the steering committee's chair is the Ministry of Urban and Infrastructure. However, the steering committee has not been active for a long time, so, it is important to make this steering committee functional with the addition of one member which is MSE's association. So far, there is no MSE's association; hence, it has to be established. This steering committee has to focus on the overall continual monitoring and controlling of MSE in the construction industry. Continual monitoring and monitoring are important to ensure a conducive business environment for the sustainable development of MSE (Nicholas and Fruhmann, 2014).

In addition, the Ministry of Urban and Infrastructure has to take the lead in launching different initiatives similar to the MSE development programme of other countries; it has to play its role as an umbrella institute for MSE development in the construction industry. The importance of specific MSE development programmes is to have a follow-up mechanism till the MSE reach the expected graduation

level where the enterprises do not need much support from the government. The existing practice mainly focuses on establishing MSE, there is no clear follow-up mechanism. As indicated in OECD et al. (2020), follow-up and giving a second chance for failing business is one of the policy indices. Rather than focusing on promoting the establishment of new, strengthening the existing will increase the chance of growth.

The relevant institutes to actively engage in MSE development are the Ministry of Urban and Infrastructure, ECA, Ministry of Labour and Skills and the steering committee depending on the mandate conferred on them by law. To achieve these, the applicable regulatory instruments are MSE development policy and strategy, registration directives and different guidelines for the expected new initiatives/MSE development programme. So far, different guidelines have been developed by different bodies, e.g., Addis Ababa city housing guidelines, Amhara Regional state guidelines, etc., but these need to be harmonised nationally.

Access to markets

MSE tend to face particularly high barriers and risks in entering new markets due to different internal and external challenges. This pillar focuses on public procurement with three sub-dimensions: (1) allocating a certain portion of a project to MSE, (2) incentivising larger companies and (3) transparency to reduce corruption.

From the current situation, where most of the MSE are inactive, the establishment of new MSE in mass focusing only on job creation should be avoided. In Ethiopia, there is a plan to increase the market share of MSE by 10% annually, but there is no clear strategy to achieve this target. The government is the major client, so it can improve this through its procurement system by allocating a significant portion of the projects to MSE that match the target, i.e., 10% and incentivising larger companies through prequalification criteria during tendering; incentivising those who promote MSE through subcontracts. However, there must be a mechanism to verify the support of larger companies to MSE. This can be tied to the registration system; project performance can be a criterion in the registration system. The other subdimension in procurement is transparency; the findings indicated that corruption is one of the challenges in the market. So, it is important to work on transparency through disclosing information about the projects given to MSE.

The relevant institutes to implement this pillar are the Public Procurement Authority (PPA), ECA, Ministry of Urban and Infrastructure, Ministry of Labour and Skills, Ministry of Trade and Regional Integration, major public clients in all sectors (building, road, waterworks etc.) and the relevant applicable regulatory instruments are procurement directives, MSE development policy and strategy, registration directives and guidelines for monitoring performance and growth.

Access to finance

Access to finance is critical to companies' survival and growth. Due to their smaller size, MSE often face barriers in accessing external financing. This pillar assesses the government's efforts to facilitate MSE's access to financial resources and the effort of public clients for timely payments. The finding indicates that payment delay by the client is a common practice; this is among the challenges that affect the

performance of the MSE. Unlike larger companies, MSE have no option as sources of finance; hence this practice needs to be improved. In addition, the availability of credit-providing institutions for MSE and the ability to own/rent appropriate machinery and equipment needs improvement. The relevant institutions to implement this pillar are banks, microfinance institutions and public clients and the relevant regulatory tools to achieve this are MSE development policy and strategy and guidelines for monitoring performance and growth.

Training and advisory

This pillar focuses on capacity improvement and it has two dimensions which are: (1) management capacity with two sub-dimensions (a) organisation structure and project management and (b) coping with the competitive business environment and (2) technical capacity. This pillar is voluntary in nature; difficult to enforce the MSE to implement the result of the training and advisory; it needs mind change of the cooperative members. As discussed earlier, the majority of the MSE are cooperatives; hence, developing an effective organisation structure, i.e., clearly defining the duties and responsibilities in the enterprise is important. Improving this needs leadership ability and it is important to identify the skills gap and fill it through training and development. Thus, having good strategic management practices is important for the MSE to cope with the competitive business environment. This is largely affected by the commitment of enterprise owners/partners.

Awareness development must address the major concern of stakeholders to change the perception towards MSE business. Muriithi (2017) indicated that one of the challenges facing MSE is a negative perception from potential customers. The enterprises are perceived to be unable to provide the required quality products and services as compared to large businesses. This reaffirms the ministry's report (Ministry of Urban Development and Housing, 2016). Generally, a negative attitude towards MSE is the core challenge and takes different manifestations of which the major ones are lack of knowledge of the potential of MSE, preference for paid employment and dependency. The perception of larger companies, individuals involved in the MSE business and the general community, towards MSE business is found to be average. This will affect the growth of the MSE; especially, developing a good perception of larger companies is very important as they are one of the market sources to give projects through subcontracting.

The Ministry of Urban and Infrastructure, the Construction Management Institute and higher education institutions are the pertinent institutions to implement this pillar while the relevant regulatory instruments to accomplish this are the MSE development policy and strategy, registration directives and guidelines for monitoring performance and growth.

CONCLUSIONS

To ensure the sustainable development of MSE, it is essential to address various challenges. This study has identified the internal and external challenges. Internal challenges include issues related to management practices such as organisation structure and project management and coping with the competitive business environment are found to be the major challenges. It was also found that payment delay is a common problem. This study emphasised that member(s) of the

enterprise need tailored training to improve the technical capacity to be effective in mobilising the resources despite their relevant educational qualification. External challenges identified in the study include ineffective policy support and regulation, weak registration practices and demand and price fluctuations.

In the construction industry, the government plays a significant role as a major client, promoter and regulator. Implementing an integrated strategy can improve the challenges and create a conducive business environment for MSE sustainable development. To achieve this, a framework with four pillars has been developed:

1. Registration and follow-up with three dimensions – (a) registration system, (b) institutional setup and (c) monitoring performance and growth,
2. Access to market with public procurement as a dimension with three sub-dimensions – (a) allocating a certain portion of a project to MSE, (b) incentivising larger companies and (c) transparency to reduce corruption,
3. Access to finance with two dimensions – (a) financial institutions and (b) public clients' timely payments and
4. Training and advisory with two dimensions – (a) management capacity and (b) technical capacity.

Continual monitoring and controlling is important to maintain the conduciveness of the business environment. The common relevant institutes to actively engage in MSE development are the Ministry of Urban and Infrastructure, ECA, Ministry of Labour and Skills, PPA, Construction Management Institute and HEIs and the steering committee depending on the mandate conferred on them by law. To achieve these, the common regulatory instruments are MSE development policy and strategy, registration directives, procurement directives and guidelines to be developed for monitoring and controlling MSE development.

The findings of this study and the proposed regulatory framework provide information for the concerned parties to improve the development of MSE in the construction industry:

1. For the concerned regulatory bodies, it indicates the major pillars in improving the MSE participation, dimensions and sub-dimensions of the pillars and the expected role of the public bodies with the relevant regulatory instruments.
2. For MSE, it will give information concerning the internal challenges and importance of establishing an association to improve their bargaining power at the national level.

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REFERENCES

- Abraham, G.L. (2003). Critical success factors for the construction industry. In K.R. Molenaar and P.S. Chinowsky (eds.), *Construction Research Congress: Wind of Change; Integration and Innovation*. Hawaii: American Society of Civil Engineers, 1–9. [https://doi.org/10.1061/40671\(2003\)63](https://doi.org/10.1061/40671(2003)63)
- Adendorff, C., Appels, G. and Botha, B. (2011). Strategic management: An Eastern Cape construction SME case study. *Acta Structillia*, 18(2): 40–63.
- Appels, G. (2010). Strategic management guidelines for construction SME's in Eastern Cape. Master's diss. University of Stellenbosch.
- Assefa, T. (2014). The contribution of micro and small enterprises in community development in Addis Ababa Gullele Sub City. MA diss. Addis Ababa University.
- Bajracharya, A., Ogunlana, S., Goh, C.S. and Tan, H.C. (2018). Conceptualising the nexus of projects, finance and capacity in construction business. *Frontiers of Engineering Management*, 5(3): 289–297. <https://doi.org/10.15302/J-FEM-2018021>
- Bakar, A.H.A., Razak, A.A., Yusof, M.N. and Karim, N.A. (2011). Factors determining growth of companies: A study on construction companies in Malaysia. *African Journal of Business Management*, 5(22): 8753–8762. <https://doi.org/10.5897/ajbm10.1142>
- CIDB-South Africa (2011). *Baseline Study of Provincial Contractor Development Programme: Review of the Contractor Development Programmes Towards an NCDP Monitoring and Evaluation System*. Pretoria: CIDB-South Africa.
- Construction 21 Report (1999). *Reinventing Construction*, Ministry of Manpower and Ministry of National Development, Construction 21 Steering Committee. Singapore: Construction 21 Steering Committee.
- Construction Industry Review Committee (CIRC) (2001). *Construct for Excellence: Report of the Construction Industry Review Committee*. Hong Kong: CIRC.
- Dalitso, K. and Peter, Q. (2000). *The Policy Environment for Promoting Small and Medium-Sized Enterprises in Ghana and Malawi*. Manchester: Institute for Development Policy and Management, University of Manchester.
- Didibhuku, T.W. and Mvubu, M. (2008). Problems facing small and medium size contractors in Swaziland. *African Journal of Business Management*, 2(5): 93–98. <https://doi.org/10.4236/jssm.2009.24042>
- Endris, E. and Kassegn, A. (2022). The role of micro, small and medium enterprises (MSMEs) to the sustainable development of sub-Saharan Africa and its challenges: A systematic review of evidence from Ethiopia. *Journal of Innovation and Entrepreneurship*, 11(1): 20. <https://doi.org/10.1186/s13731-022-00221-8>
- Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics*. 4th Ed. Los Angeles: Sage Publications.
- Gasa, Z.B.N. (2012). Measuring the competitiveness of small, medium and micro enterprise contractors through the use of the register of contractors. PhD diss. Nelson Mandela Metropolitan University.
- Gay, L.R., Mills, G.E. and Airasian, P. (2012). *Educational Research: Competencies for Analysis and Applications*. 10th Ed. Upper Saddle River, NJ: Pearson.

- Gibson, T. and Van der Vaart, H.J. (2008). Defining SMEs: A less imperfect way of defining small and medium enterprises in developing countries. Available at: <https://www.brookings.edu/articles/defining-smes-a-less-imperfect-way-of-defining-small-and-medium-enterprises-in-developing-countries>
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010). *Multivariate Data Analysis*. 7th Ed. London: Pearson Prentice Hall.
- Hillebrandt, P.M. (1999). Problems of larger local contractors: Causes and possible remedies. In *Proceedings of CIB-TG29, Contractor Development, UCCIDAH in Conjunction with Department of Civil Engineering and Department of Architecture, Makerere University*. Kampala, Uganda: Makerere University, 25–33.
- International Growth Centre (IGC) (2012). *The Challenges and the Way Forward for the Construction Industry in Mozambique*. London: IGC.
- Irijayanti, M. and Azis, A.M. (2012). Barrier factors and potential solutions for Indonesian SMEs. *Procedia Economics and Finance*, 4: 3–12. [https://doi.org/10.1016/s2212-5671\(12\)00315-2](https://doi.org/10.1016/s2212-5671(12)00315-2)
- Kiggundu, B.M. (1999). Institutional challenges to contractor development. In *Proceedings of CIB-TG29, Contractor Development, UCCIDAH in Conjunction with Department of Civil Engineering and Department of Architecture, Makerere University*. Kampala, Uganda: Makerere University, 161–167.
- Kumaraswamy, M. (2006). Accelerating construction industry development. *Journal of Construction in Developing Countries*, 11(1): 73–94.
- Lijauco, F., Gajendran, T., Brewer, G. and Rasoolimanesh, S.M. (2020). Impacts of culture on innovation propensity in small to medium enterprises in construction. *Journal of Construction Engineering and Management*, 146(3): 04019116. [https://doi.org/10.1061/\(asce\)co.1943-7862.0001753](https://doi.org/10.1061/(asce)co.1943-7862.0001753)
- Mosissa, A. (2013). Contributions of small, medium and micro enterprise contractors on road construction projects in Ethiopia. MSc diss. Addis Ababa University.
- Ministry of Urban Development and Housing (2016). *Micro and Small Enterprise Development Policy and Strategy*. 2nd Ed. Addis Ababa, Ethiopia: Public Relations and Developmental Communication Secretariat, Ministry of Urban Development and Housing, Government of the Federal Democratic Republic of Ethiopia.
- _____. (2013). *Construction Industry Development Policy*. Addis Ababa, Ethiopia: Ministry of Urban Development and Construction.
- Muriithi, S. (2017). African small and medium enterprises (SMEs) contributions, challenges and solutions. *European Journal of Research and Reflection in Management Sciences*, 5(1): 36–48.
- National Credit Regulator (NCR) (2011). *Literature Review on Small and Medium Enterprises' Access to Credit and Support in South Africa*. Pretoria: NCR.
- Nicholas, C. and Fruhmann, M. (2014). Small and medium-sized enterprises policies in public procurement: Time for a rethink? *Journal of Public Procurement*, 14(3): 328–360. <https://doi.org/10.1108/jopp-14-03-2014-b002>
- OECD (Organisation for Economic Cooperation and Development), European Commission (EC), European Training Foundation (ETF) and European Bank for Reconstruction (EBRD) (2020). *SME Policy Index: Eastern Partner Countries 2020; Assessing the Implementation of the Small Business Act for Europe*. Brussels/Paris: European Union & OECD Publishing. <https://doi.org/10.1787/8b45614b-en>

- Ofori, G. (1999). Construction contractor development: New directions. In *Proceedings of CIB-TG29, Contractor Development, UCCIDAH in Conjunction with Department of Civil Engineering and Department of Architecture, Makerere University*. Kampala, Uganda: Makerere University, 147–160.
- _____. (1980). The construction industries of developing countries: The applicability of existing theories and strategies for their improvement and lessons for the future; The case of Ghana. PhD diss. University College London.
- Ramirez, R.R., Alarcón, L.F.C. and Knights, P. (2004). Benchmarking system for evaluating management practices in the construction industry. *Journal of Management in Engineering*, 20(3): 110–117. [https://doi.org/10.1061/\(ASCE\)0742-597X\(2004\)20:3\(110\)](https://doi.org/10.1061/(ASCE)0742-597X(2004)20:3(110))
- Singh, R.K., Garg, S.K. and Deshmukh, S.G. (2008). Strategy development by SMEs for competitiveness: A review. *Benchmarking: An International Journal*, 15(5): 525–547. <https://doi.org/10.1108/14635770810903132>
- Smith, A. and Whittaker, J. (1998). Management development in SMEs: What needs to be done? *Journal of Small Business and Enterprise Development*, 5(2): 176–185. <https://doi.org/10.1108/EUM0000000006765>
- Tang, Y.H. and Ogunlana, S. (2003). Selecting superior performance improvement policies. *Construction Management and Economics*, 21(3): 247–256. <https://doi.org/10.1080/0144619032000093765>
- Tripathi, K.K. and Jha, K.N. (2017). An empirical study on performance measurement factors for construction organizations. *KSCE Journal of Civil Engineering*, 22: 1–15. <https://doi.org/10.1007/s12205-017-1892-z>
- Tshikhudo, L.M. (2016). Development of construction small, medium and micro enterprise in the South African construction industry. Master's diss. University of Johannesburg.
- Wang, Y. (2016). What are the biggest obstacles to growth of SMEs in developing countries? An empirical evidence from an enterprise survey. *Borsa Istanbul Review*, 16(3): 167–176. <https://doi.org/10.1016/j.bir.2016.06.001>
- Wong, J.M.W. and Ng, S.T. (2010). Company failure in the construction industry: A critical review and a future research agenda. Paper presented at the 24th FIG International Congress: Facing the Challenges: Building the Capacity. Sydney, Australia, 11–16 April.