

Factors Influencing the Growth of Construction MSMEs: A Review

¹Shyamal Parakhiya, ²Prof. A. N. Bhavsar, ³Dr. J. R. Pitroda

¹MTech Student CEM, ²Associate Professor, ³Associate Professor

^{1 2 3}Civil Engineering Department,

^{1 2 3}Birla Vishwakarma Mahavidhyalaya, Vallabh Vidyanagar, India

Abstract : Construction micro, small and medium enterprises (MSMEs) execute a large portion of construction work and are an important part of the economy. The need for efficient MSMEs is well documented and cannot be over-emphasised. MSMEs play an important role in employment generation. However, their in-process operations are not well understood and have rarely been addressed. Construction MSMEs face numerous impediments preventing their sustainable growth and development. Thus, gaining insight in the management practices and their needs will help in further improving the standards of the construction industry. This paper focuses on enhancing the growth opportunities of construction MSMEs and to gain insight into working of construction MSMEs.

Index Terms - Construction MSMEs; Business Practices; Development of micro small and medium enterprises

I. INTRODUCTION

By nature, construction industry has many unusual problems and needs (Ofori, 2009). Construction too often fails to fulfil the requirements of contemporary businesses and impacts on their competitiveness in international markets and infrequently provides best value. Construction must improvise on its performance and development aspects and thus achieve its objectives and targets of time, quality and cost (Ofori, 2009). It is therefore a primary goal for construction to take measures to enhance performance.

In its ability to come up with technological advances, the construction industry is typically unfavourably contrasted with the manufacturing sector (Seaden and Manseau, 2001; Reichstein, 2005). Possible reasons for this may be the project-based nature of the construction industry and also the temporary couplings that make up much of the nature of the industry (Dubois and Gadde, 2002). Innovation and creation rates may appear to be lower in a large ticket sector, such as building, as the cost of process or product change is costly. It is doubtful that a business-as-usual attitude would be able to integrate shifting societal values or cope with increasing criteria for environmental efficiency. If the industry is to overcome these challenges, effective creation, production and implementation of technological solutions to multiple construction problems would be important.

The contribution of MSMEs to the economy of a country has been recognized in developing countries. Its influence can be seen in entrepreneurial training, lower wage disparity, technical capacity building, sales growth, greater resilience in evolving market environments, job creation, and business dispersion away from urban areas and regional development (Katrak and Strange, 2002; Weeks, 2012).

II. CONSTRUCTION MSME

It is generally accepted that the growth of a country is measured by the advances in its infrastructure. The construction industry is therefore a vital component in the development of every nation.

Skilled and unskilled employment are directly impacted by MSMEs in the construction industry. It is thus required to give importance to the constraints faced by such firms are identified and analysed. This will further ensure that problems regarding unemployment are reduced and the structures erected are worth their value for money.

2.1 Criteria for defining MSME

Shakantu (2006) states that the MSMEs firms consists of mostly family-owned business employing very few people. Chilipunde (2007) also noted that the MSMEs are typically a family-owned business with few managers and mostly casual labours or, in some cases, sole-proprietorship firm. The first attempt to solve the problem of definition was by the Bolton Committee (1971), which, as seen in the Table 1, formulated an economic and statistical definition. According to Bolton committee for small construction firms consists of 25 employees or less.

Table 1 - Definition of small firm according to Bolton Committee (1971)

Economic Definition	Statistical Definition
Relatively small market share	Size of small firm sector and its contribution to GDP and exports.
Managed by owners in personalised way and not through formal management structure	Changes in small firm sector's economic contribution over time.
Is not a part of a large enterprise	Comparison across country of small firm's economic contribution.

As stated by Kayanula and Quartey (2000), it is with this information that the European Commission (EC) defined the criteria of Small, Medium and Micro Enterprises (MSMEs). It is noted by many authors [Shakantu (2006), Chilipunde (2007), Kayanula and Quartey (2000)] that the EC definition is too all-embracing for a number of countries.

Table 2 Distribution of firms by the number of employees in different countries

Countries	Micro	Small	Medium
EU countries	Less than 9	10-49	50-249
Australia	Less than 9	10-49	50-199
Canada	Less than 9	10-49	50-499
Japan	Less than 9	10-49	50-249
Korea	Less than 9	10-49	50-199
Mexico	Less than 10	11-50	51-250
New Zealand	Less than 9	10-49	50-99

Source: OECD (2010)

Table 3 Classification of MSMEs in India

Composite criteria: Investment and Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < 1cr Rs And Turnover < 5cr Rs	Investment < 10cr Rs And Turnover < 50cr Rs	Investment < 20cr Rs And Turnover < 100cr Rs

Source: Ministry of Micro, Small & Medium Enterprises, Govt. of India (2020)

As seen in Table 2, most of the countries adopt the definition based on the number of employees, with the definition of micro and small almost being similar across countries. Whereas, India has adopted a common definition for all types of businesses. As seen in Table 3, the definition is based on investments and turnover of the firm.

III. DRIVERS OF THE FIRM'S DEVELOPMENT

3.1 Company Objectives

Objectives of a company determine the factors for assessing a company's development. In general, the most long-range goal of a commercial company is to increase the wealth of its owners or, at least, to keep up it at its original size. to realize this goal, more specific economic objectives must be defined like

- Profitability-measured by return on equity or return on assets
- Growth-measured in terms of assets, turnover, or a share of the market
- Survival of a company (or limiting the risk the company is taking on in its ventures)

A construction company may additionally have other objectives, of a less economic nature, like technological leadership, service to the community, service to the environment, and welfare of the staff. It's not always clear whether these objectives are either pursued for his or her own merit or because, within the future, they contribute to the economic welfare of the corporate. Examination of a company's mission, viewed by the owners, has two aims. First, it determines the constraints on the strategic courses of action of an organization. Second, it defines the factors for fulfilment under which these courses of action are judged.

Primarily, it is found that to achieve these objectives, four important aspects of firm are to be focused on, namely, Strategic planning, Financial management, Human Resource Management and IT implementations.

3.2 Strategic Planning

Strategic planning is a necessary function of senior management in any business. Planning involves the firm's behaviour in a very competitive market and adaptation of the company's resources towards the chosen market strategy. Strategic planning is a necessary function of top management in any construction company. This strategy is devised with a problem-solving approach of system analysis within the following stages.

- Examination of the company's mission reflects the owners' views with regard to the company's objectives and scope of activities.
- Analysis of the company's resources include the procurement system, construction capacity, the organization, the marketing system, personnel, finances and knowledge.

In view of consumer needs, the relative strengths and limitations of a resource are defined. In a survey of 150 small businesses by Wynczyk et al (1993), the financial performance of small businesses was positively impacted by the good management and marketing skills of owner-managers. Company sustainability is highly dependent on the management abilities of small business owners and managers. Many owner-managers, which often contribute to the business collapsing, struggle to handle financing, staff, costs and markets effectively. Critical analysis of financing issues, training needs, business skills, IT skills and ethical behaviour among MSMEs is therefore necessary for the growth of companies. Table 4 shows studies conducted by various authors to identify factors that affect the business performance of construction MSMEs.

Table 4 Factors mainly affecting overall business performance in construction MSMEs as per different authors

	Strategic Planning	Financial Management	Human Resource Management	IT Implementation
Wooetal (1989)	✓	✓	✓	
Wynarczyk (1993)	✓	✓		
Jennings (1997)	✓		✓	
Hitchins (1998)	✓			
Betts (1999)			✓	✓
Stewart et al (2003)	✓	✓	✓	✓
Xiangfeng, L. (2007)		✓		✓
Joshua (2010)		✓	✓	✓
Adendorff C (2011)	✓			
Hashim (2015)	✓	✓		✓

3.3 Finance

The contribution of micro, small and medium enterprises (MSMEs) to the socio-economic growth of a country has now become well known. The significant role played by small and medium-sized construction companies in the nation's development process is equally recognized (UNCHS, 1996; Juanzon and Muhi, 2017; Asante et al., 2018).

Olomi et al. (2009) established limitations restricting access to financing for MSMEs. In terms of their low level of data and skills, underdeveloped business culture, minimal recorded credit background, lack of separation of business from family or personal matters, the ability of MSMEs is constrained. These companies also have a tendency not to pursue all available funding options. Another major limitation is that the organization has few skilled employees.

The smaller and/or younger the business, the lower the valuation of assets that can be used as security and thus they are more likely to face challenges in raising finance (Bannock, 1981). Owner-manager age was highly correlated to the effectiveness of securing funding, younger owner-managers were less likely to receive financing (Hustedde and Pulver, 1992). Kuntchev et al. (2012) used data from the Enterprise Survey of the World Bank, covering 13,685 enterprises across 38 sub-Saharan nations. A significant association was found between a company's size and their access to credit. It was more likely that smaller companies would be constrained. Wang (2016) discovered that high growth firms, ownership, employees and age all correlated substantially with access to finance.

3.4 Human Resource

There is no clear strategy or goal for the creation of human capital and their absorptive potential in small organizations that are essentially managed and run by their owner and director. One of the main factors highlighted by the various writers is that of internal management, which is mainly the owner-manager himself in the case of small businesses. Some of the common challenges that small businesses face are as follows:

- Owner-managers want to retain power
Owner-managers want their business to maintain control and are thus unable to assign real responsibility and delegate. (Hankinson, 1991; Mount et al., 1993; Reid, 1993; Small bone et al., 1993)
- Non-rational business attitude
The priorities of small business owners-managers are often not what economists expect, i.e., profit maximization or maximization of sales/market share. (Davidsson, 1989; Goffee and Scase, 1995; Storey, 1990).
- Lack of managerial ability
Many entrepreneurs come from non-business backgrounds who lack the different management skills required to effectively run the business though they can be technically knowledgeable and have robust product knowledge. (Berryman, 1993; O'Farrell and Hitchens, 1989; McGee, 1989).
- Fear of incubating rivals
Many entrepreneurs are worried that if they allow too much information to be disseminated, workers will leave taking the expertise to set up competition with them. (Goffee and Scase, 1995; MacMahon, 1995).
- Inability to deal with conflict
Unwillingness to consider various views or to take an impartial view of conflict. This has consequences for the satisfaction and retention of workers. (Gunnigle and Brady, 1984; Scott et al., 1989).

3.5 IT Implementation

In sectors such as construction, IT has not been recognised as a distinctive element leading to the competitive advantage of an organisation. In contrast to other industries, this industry is reported as a laggard in accepting IT. To date, IT research in construction domain has mainly had a technological emphasis (i.e., software application creation and interoperability issues) rather than a managerial nature, such as expenditure rationale, policy and planning for strategic information systems (Love and Irani, 2003). Direct IT costs are those that can be related to new technology deployment and service. While these costs frequently go beyond the system's initial user specification, it is management's emphasis on these factors that often determines the budget and ultimate justification of the projects.

The evolving and complex IT/IS climate also contributes to the creation of technologies that can impact organizational competitiveness. Consequently, when investing in emerging technology, companies need to take risk into account. Jiang and Klein stated that risks are usually related to an IT project's viability and the consequent payoffs (i.e., the likelihood of not finishing on time or

to budget). During the justification process, the risk assessment will allow management to prepare for any occurrences that may arise. (Love et al. 2004).

- a) Lack of investment decision-making management guidelines can compel organizations to take one of many questionable positions. (Stewart 2002)
 - (i) An unwillingness to introduce an IT infrastructure which could improve the long-term viability of the company.
 - (ii) An investment in information technology as an act of faith.
 - (iii) Use of creative accounting (assigning subjective meanings to benefits and costs) as a way of bypassing the justification process.
- b) The obstacles to the slow take-up of technology at the industry level were described in an Australian government report on IT in the construction industry (NSW, 1998) as:
 - i) The dynamic existence of the market. There are 148,000 Australian consultants, contractors, subcontractors, subcontractors and vendors. There are an average of three workers each.
 - ii) The various organizations with customers. Each needs a wide variety of sophisticated data.
 - iii) An industry that operates at very low margins, with operating capital much smaller than other industries. This severely limits initiatives in education, science, and development.
 - iv) In general, project data is re-established at each level and by each discipline.
 - v) The restricted existence of knowledge sharing; businesses want their competitive advantage to be safeguarded.
 - vi) The cyclical nature of production in the field. This results in workers leaving the sector, bringing with them their expertise and knowledge.

CONCLUSION

Construction MSMEs, as an important force in the construction market, face the challenges of staying competitive, which concern their survival and future growth. It is apparent from the literature review that MSMEs are facing many constraints and challenges. Several researchers have tried to highlight them. The literature review also shows that much research has been carried out in other countries on the challenges and constraints facing MSMEs, but no comprehensive study has been conducted in India. This review demonstrates that the challenges vary in various aspects, such as strategic planning, financial management, management of human resources and implementation of IT. Therefore, there are many significant obstacles identified to the development of construction MSMEs, which can influence organizational performance at a macro level, but more insights must be gathered from a thorough study.

ACKNOWLEDGMENT

This work has become possible only because of the constant support and motivation from Prof. (Dr.) I. N. Patel, Principal, BVM Engineering College, Vallabh Vidyanagar, Gujarat, Prof. (Dr.) L. B. Zala, HOD, Civil Engineering Department, BVM Engineering College, Vallabh Vidyanagar, Gujarat, Prof. A. N. Bhavsar, Associate Professor, Civil Engineering Department, BVM Engineering College, Vallabh Vidyanagar, Gujarat and Dr. Jayeshkumar R. Pitroda, Associate Professor, PG Coordinator Construction Engineering and Management, Civil Engineering Department, BVM Engineering College Vallabh Vidyanagar, Gujarat.

REFERENCES

1. Ahuja, V., Yang, J. and Shankar, R., 2009. Study of ICT adoption for building project management in the Indian construction industry. *Automation in construction*, 18(4), pp.415-423.
2. Arthur-Aidoo, B.M., Aigbavboa, C.O. and Thwala, W.D., 2018. Exploratory factor analysis on drivers of firm's growth among construction SMEs in Ghana. *African Journal of Science, Technology, Innovation and Development*, 10(1), pp.20-27.
3. Berryman, J. (1993), "Small business failure and bankruptcy: a survey of the literature", *European Small Business Journal*, Vol. 1 No. 4.
4. Branson, J. and Miller, D., 2002. *Damned for their difference: the cultural construction of deaf people as "disabled": a sociological history*. Gallaudet University Press.
5. Coffey, V., 2010. *Understanding organisational culture in the construction industry*. Routledge.
6. Cooper, A.C., Woo, C.Y. and Dunkelberg, W.C., 1989. Entrepreneurship and the initial size of firms. *Journal of Business Venturing*, 4(5), pp.317-332.
7. Dainty, A. and Loosemore, M. eds., 2013. *Human resource management in construction projects*. Routledge.
8. Davidsson, P. (1989), *Continued Entrepreneurship and Small Firm Growth*, Stockholm School of Economics, Stockholm.
9. Dlungwana, W.S. and Rwelamila, O.D., 2004. Contractor development models for promoting sustainable building—a case for developing management capabilities of contractors.
10. Goffee, R. and Scase, R. (1995), *Corporate Realities: The Dynamics of Large and Small Organisations*, Routledge, London.
11. Kamal, E.M. and Flanagan, R., 2012. Understanding absorptive capacity in Malaysian small and medium sized (SME) construction companies. *Journal of Engineering, Design and Technology*.
12. Kashmoola, B., Ahmad, F. and Kheng, Y.K., 2017. Job satisfaction and intention to leave in SME construction companies of United Arab Emirates (UAE). *Business Management Dynamics*, 7(3), p.1.
13. Kothari, C.R., 2004. *Research methodology: Methods and techniques*. New Age International.
14. Kulemeka, P.J., Kululanga, G. and Morton, D., 2015. Critical factors inhibiting performance of small-and medium-scale contractors in Sub-Saharan region: A case for Malawi. *Journal of Construction Engineering*, 2015(927614)
15. Lasker, G.C., Schuette, S., Cox, R.F. and Beck, D.M., 2010. Critical Success Factors for a Construction Company. In *TG65 & W065-Special Track 18th CIB World Building Congress May 2010 Salford, United Kingdom* (p. 26).
16. Love, P.E., Irani, Z. and Edwards, D.J., 2004. Industry-centric benchmarking of information technology benefits, costs and risks for small-to-medium sized enterprises in construction. *Automation in construction*, 13(4), pp.507-524.
17. McGee, J. (1989), "Barriers to growth: the effects of market structure", in Barber, J., Metcalfe, J.S. and Porteous, M. (Eds), *Barriers to Growth in Small Firms*, Routledge, London.

18. Nehru, R., 2001. E-commerce in the Indian construction industry. *NICMAR Journal*, 16(1), pp.51-59.
19. NSW Department of Public Works and Services 1998: Information technology in construction – making IT happen. Sydney: NSW Department of Public Works and Services
20. O’Farrell, P.N. and Hitchens, D.M. (1988b), “The relative competitiveness and performance of small manufacturing companies in Scotland and the Mid-West of Ireland”, *Regional Studies*, Vol. 22 No. 5
21. Reid, C.G. (1993), *Small Business Enterprise: An Economic Analysis*, Routledge, London.
22. Scott, M., Roberts, I., Holroyd, G. and Sawbridge, G. (1989), *Management and Industrial Relations in Small Firms*, Research Paper No. 70, Department of Employment, London.
23. Shiels, H., McIvor, R. and O’Reilly, D., 2003. Understanding the implications of ICT adoption: insights from SMEs. *Logistics information management*.
24. Smallbone, D., Leigh, R. and North, D. (1993), “High growth performance in small and medium sized manufacturing enterprises”, in Robertson, M., Chell, E. and Mason, C. (Eds), *Towards the Twenty First Century: The Challenge for Small Business*, Nadmal Books
25. Stewart, P.S., 2002. Mechanisms of antibiotic resistance in bacterial biofilms. *International journal of medical microbiology*, 292(2), pp.107-113.
26. Stewart, R., Miller, C., Mohamed, S. and Packham, G., 2003. Sustainable development of construction small and medium enterprises (SMEs): IT impediments focus. *CIB REPORT*, 284, p.361.
27. Storey, D.J. (1990), “Firm performance and size”, in Acs, Z.J. (Ed.), *The Economics of Small Firms: A European Challenge*, Kluwer, London.
28. Toor, S.U.R. and Ofori, G., 2009. Authenticity and its influence on psychological well-being and contingent self-esteem of leaders in Singapore construction sector. *Construction Management and Economics*, 27(3), pp.299-313.
29. Upstill-Goddard, J., Glass, J., Dainty, A. and Nicholson, I., 2016. Implementing sustainability in small and medium-sized construction firms. *Engineering, Construction and Architectural Management*.