Factors Influencing MSMEs Performance

B.U. Sivakami and M. Suresh
Amrita School of Business,
Amrita Vishwa Vidyapeetham,
Coimbatore, India
sivikoushika@gmail.com, m_suresh@cb.amrita.edu

Abstract

This research's goal is to list and rate the variables that affect how well Micro, Small, and Medium-Sized Enterprises (MSME) function. The Total Interpretive Structural Modeling (TISM) technique determines the interconnectedness, relative importance, and relationships between various components. Analysing these factors' dependencies and driving forces is another key component of the work. The findings revealed that organisational reform, entrepreneurial spirit, and government backing are the key motivators. MSMEs should concentrate on these elements to enhance their performance. Additionally, by reforming MSMEs' businesses, this strategy will increase their profitability and resilience.

Keywords
MSME; TISM; MSMEs performance; Entrepreneurial spirit; Organizational change.

1. Introduction

The Micro, Small, and Medium Enterprises (MSME) sector contributes significantly to overall economic activity and job creation. According to the DGCIS data for 2019-20, the MSME sector comprises a large network of 63 million units and employs approximately 110 million people. In 2019, the sector accounts for 29 percent of overall GDP and 48.56 percent of total exports in 2017-18 (Tripathi 2020). As a result, Indian SMEs are more exposed to global supply chains and integration. The MSME industry, which is India's growth driver, accounts for 33.4 percent of the country's manufacturing production (IBEF 2020). With the government's new mission of achieving a $5 trillion economy by 2025, the sector's importance for the economy's socioeconomic growth has grown.

COVID-19, which is said to have emerged in Wuhan in December 2019, has caused widespread havoc across the world. It has resulted in a large number of human casualties around the world, especially in Europe, the United States, China, and many other developed economies.

The objectives of this study are described below:
• To identify and rank the factors influencing the MSMEs
• To analyse the interrelationships among factors using TISM.

2. Literature Review

2.1 Government support

The government policy made to support entrepreneurship in the country for the growth of the MSMEs units, one such is investing in capital. MSME’s capital needs are met by either internal source of funds or debt capital from external sources. However, the lack of timely credit should be covered by immediate government attention. Verma (2010) has reported that the government has developed industrial policies to facilitate the flow of credit towards the micro, small and medium enterprises. Parthasarathy (1992) highlighted that the support from government is necessary to increase the growth of business activities in the country. Squire (20 found that the small-scale industries face more challenges as compared to the large enterprises, financially. The Indian government addressed the MSMEs are more credit constrained, compared to large enterprise. The study in Kerala concluded that the financial institutions are hesitating to extend the credit to small, scaled firms.

This in-turn brought to an insight that unless there is a change in the attitude of banks and financial institution, the government’s incentive packages for small industries were not able to reach the grass root level. Duan et al. (2009) also stressed on the fact that MSMEs are dependent upon the public sector banks and financial institutions to a large extent, financially. The absence of collateral security, MSMEs are not able to access credit from the banks and thereby limiting its contribution to the economic development. Sahoo and Ashwani (2020) highlighted the government’s support to create a strong foundation for the Indian MSMEs, the Government of India has taken different type of measures like, changing MSME definition, collateral-free automatic loans, subordinate debt for stressed MSMEs, equity infusion through fund of fund, liquidity through TDS/TCS rate reduction.

© IEOM Society International
2.2 Entrepreneurial spirit
Dey (2014) confirmed that there is a relationship between entrepreneurial goals and motivation with MSMEs sector. Motivation is taken a recognition to translate opportunity into actions. MSMEs focuses on operational activities because they are concerned about survival than growth. Hence, growth seeking MSMEs are acting entrepreneurially. The difference between MSMEs and entrepreneurs is the degree to which they engage in the search for growth opportunities. Parthasarathy (1992) explained that the rapid changes by international trade and new marketing strategies over the years have necessitated structural changes affecting the MSMEs throughout the world. Also, the digital transformation process (Wiliandri 2020) and dynamic managerial capability (Helfat and Martin 2014) are important for performance increase.

2.3 Organizational change
Agility of a business is characterized by its capabilities and competencies to change which leads to the survival of organization’s development in business environment (Ghodrati and Zargarzadeh, 2013). Organizational change is exclaimed to create a positive attitude toward changes or new ideas, people and technology. Sherehiy (2007) suggested to monitor the internal and external environment continuously which will help in identifying the changes and opportunities. In fact, it also aids in withstanding uncertainties. Thereby, continuous improvement and product-related changes are made frequently in the organization. Sindhwani and Malhotra (2017) pointed that the changes made in an organizational structure will lead to a convenient and modified way for the employees in MSMEs to share their knowledge or ideas with managers and employers. Stone (2015) also described changes made in organization must be efficiently communicated either orally or verbally. Every organization should have their own policies, guidelines, rules, procedures.

2.4 Innovativeness
The innovativeness refers to the extent to which MSMEs are able to initiate and implement innovations at a faster rate. Hurley and Hult (1998) explained innovation as a broader concept to address the application of new ideas, products, or processes. During a dynamic environment, innovation acts as a company mechanism which necessitates the companies to come up with new ideas, thoughts and products. Sahoo, and Ashwani (2020) suggested that MSMEs should emphasize more on innovation. Post the pandemic, innovation is inevitable for MSMEs. Nursini (2020) MSMEs entrepreneurs improve their volume and values of business outputs through innovation which would help in accessing a wider market. Many economies support MSME in innovation and competitiveness, mainly to withstand the impact of the crisis. Adding on to this, the COVID-19 pandemic has also triggering public sector innovation. The paper also identified the prominent factors to improve competitiveness like difficulty in replicating or imitating, time factor, innovation. Innovativeness can be witnessed in any form products, processes or in the organizational aspect. It majorly deals with a low cost there by supporting efficiency and differentiation.

2.5 Team building
To survive in the pandemic MSMEs should deploy decentralized decision making. Aurélio de Oliveira (2012) reiterated that a team is composed of members are working together and organized. There is division of power, authority and responsibilities among the members, which leads to the team motivation and confidence. Similarly, Sherehiy (2007) noted that there is an individual empowerment in teams and teams across functions through team building which incorporates decentralized decision making. Mishra (2014) suggested that team building should insist mainly in interdisciplinary aspects, for instance responding quickly to their customers.

2.6 Technology
Wiliandri (2020) identifies the factors influencing the MSMEs for the transformation of digital medium internally and externally during the COVID-19 pandemic. The paper highlights that the outbreak forces business to transform its processes digital. Adding on to this, government policies on social distancing and lockdown restrictions greatly impacts MSMEs. Consequently, there is an immense government support for improving the digital ecosystem. Nguyen (2013) stated the five crucial factors for the successful adoption of IT viz. management commitment, internal capabilities, external skillsets and knowledge, supplier relations and customer relations. MSMEs have to develop survival strategies for the pandemic are innovation, creative business operations, aligned production and marketing strategy. Adding on to this the paper suggests adapting to digital medium is the most viable solution to add value to the business in the times of covid-19.

2.7 Marketing opportunities
Fatimah (2020) defined marketing is a total system of business operation which incorporates planning, pricing, promoting, distributing to satisfy the needs and wants of target customers in order to achieve organizational objectives. Marketing plays a very important role in many aspects of life. An efficient marketing and distribution network is considered to be an integral part of micro small and medium enterprises. In India, micro, small, and
medium-sized businesses (MSMEs) are critical to the country's industrial economy's development. In recent years, it has been discovered that MSMEs' problems are primarily due to a lack of demand, publicity issues, and a lack of working capital. When it comes to carrying out activities related to all four Ps of the marketing mix, MSMEs in India face a range of marketing challenges. However, Advertisement is inevitable in aiding the production of product awareness. Personal selling is more effective at determining customer desires, gaining new customers, and improving a company's brand. With sales promotion, increased profits and a better image of the brand are more successful. The vast majority of research units are involved in marketing and sales.

3. Research Methodology

3.1 Data collection

The 25 responses were gathered from the MSME sector in India. The study conducted semi-structure interview with a standard questionnaire. The Purposive sampling technique was used in this study.

3.2 TISM

The TISM methodology is used to comprehend how many elements influence MSME’s performance and interact with one another. To examine the links between many aspects in the MSME, many researchers have adopted the TISM technique such as studies of “Patil and Suresh 2019,” “Menon and Suresh 2019,” “Menon and Suresh 2020a;” “Suresh and Arun Ram Nathan 2020;” “Lakshmi Priyadarshini and Suresh 2020”.

The following steps are adopted from the article “Vaishnavi et al 2019a;” “Vaishnavi et al. 2019b;” “Vaishnavi and Suresh 2020;” “Menon and Suresh 2020b;” “Lakshmi Priyadarshini et al. 2020” to successfully apply the TISM model:

The first step was to find the variables influencing maintenance tasks in dangerous work situations. This was discovered through examining the literature and consultation with subject-matter experts. Table 1 includes a list of the influencing elements.

Table 1. Identified factors influencing MSMEs performance.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Working definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government support (F1)</td>
<td>Government support is defined as the government’s effort in protecting the MSME’s in particular. This also covers the efforts, policies, schemes aimed at protecting the stability of working status and work productivity and resilience of the company. For instance, some of the relaxations incorporated were credit guarantee scheme/postponing tax payments and providing capital to firms.</td>
</tr>
<tr>
<td>Entrepreneurial spirit (F2)</td>
<td>Covers the unique traits, skills and characteristics that enables entrepreneurs to overcome obstacles and pursue their dreams at full speed. This factor covers the characteristics that entrepreneurs possess to overcome the challenges they face to keep working and exist.</td>
</tr>
<tr>
<td>Innovativeness (F3)</td>
<td>New ideas or strategies or methods that the entrepreneurs come up with to outperform in the market. These innovations are made to implement a situational need for the firm’s growth.</td>
</tr>
<tr>
<td>Team Building (F4)</td>
<td>Team building covers the process of developing a team who are organized to work together to meet the needs of their customers by accomplishing their purpose and goals. These teams are formulated with interdisciplinary aspects to respond quickly to their customers.</td>
</tr>
<tr>
<td>Technology (F5)</td>
<td>To survive amidst pandemic nowadays, entrepreneurs must be able to work around digital upgradations and also incorporate digital practices in the business.</td>
</tr>
<tr>
<td>Organizational change (F6)</td>
<td>Covers the ability of the firm to respond toward change, new ideas, people and technology required for agility.</td>
</tr>
<tr>
<td>Marketing opportunities (F7)</td>
<td>This factor covers the ability to meet customer demand and understanding their pain points and framing strategies accordingly. This also cover changing business strategies and offering alternatives product/services.</td>
</tr>
</tbody>
</table>

It is necessary to build conceptual links between the components in order to arrive at the “initial reachability matrix (IRM).” In India, 25 responses were gathered. The IRM is shown in Table 2.

Table 2. IRM for factors influencing MSMEs performance.
“How factor-A influences Factor-B” is the third step where the relationship between the factor is interpreted (Sreenivasan and Suresh, 2021). The FRM was created via the transitivity check, and this is the fourth step of TISM (Sreenivasan and Suresh, 2022). Table 3 contains the FRM.

Table 3. FRM for factors influencing MSMEs performance.

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
<th>F7</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1*</td>
<td>1**</td>
<td>1*</td>
<td>1***</td>
</tr>
<tr>
<td>F2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1**</td>
</tr>
<tr>
<td>F3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>F4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1**</td>
</tr>
<tr>
<td>F5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>F6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>F7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

* ** *** represents transitive links

Step 5 is creating the levels from the FRM (Thomas et al. 2023). Using professional judgments, the significance of transitive linkages is determined (Thomas, and Suresh, 2022) and direct links are depicted in Table 4.

Finally, the interaction matrix and level partitions are used to produce the digraph (Suresh et al. 2021). The TISM model is shown in figure 1, and the reasons for the crucial and direct transitive links are covered in section 4.1.

4. Results and Discussion
4.1 Interpretation of TISM Di-graph
Proceedings of the International Conference on Industrial Engineering and Operations Management Manila, Philippines, March 7-9, 2023

Figure 1. Represents the graphical representation of TISM analysis of the factors having an influencing on the MSMEs performance.

Level IV: Level four has one factor, which is factor 1

Government support (F1) has a strong influence on third level factor entrepreneurial spirit (F2): Role of Government plays a major role in entrepreneurship. Many government initiatives were undertaken by the ministry with respect to Covid-19 relief in order to support the MSMEs. The measures taken by the government such as stamp duty exemption, reduction in MSME registration charges and credit guarantee scheme availing collateral free loans is found to be influencing the confidence and entrepreneurial spirit of the entrepreneurs. Government support (F1) had a significant influence on Innovativeness (F3): government policies incorporating incentives to innovate. Many enterprises tried to shift their focus from non-essential to essential commodities during the novel pandemic. Government extended its support to MSMEs in manufacturing of medical supplies such as N95 masks, hand-sanitizer, ventilators and thermometers. Consequently, some of the policies such as interest free loans, cash grants support the MSME in improving the productivity and also development of new products. Level four factor, government support(F1) was found to have a significant influence on second level factor, Technology (F5). MSMEs seek support from technology companies with respect to logistics, web portals, product development. During the COVID-19 pandemic, enterprises were facing severe issues related to logistics. The incorporation of technology helped MSME’s in adopting to no contact delivery.

Level III: Level three has two factors, which are factor 2 and 6

Entrepreneurial spirit (F2) has a strong influence on second level factor, Innovativeness (F3): A strong intention is found to very likely result in attempting new ideas, new methods, products and offerings. Having an entrepreneurial spirit has driven the entrepreneurs in looking up for opportunities and distribution of innovation. Entrepreneurial spirit (F2) has an influence on team building (F4): MSMEs should have a growth-oriented mindset and plan to build a team that work towards the common goal. Entrepreneurs’ attitude to change and seek for continuous improvement and innovation would positively influence the ways in which the team achieve its goals. Third level factors, entrepreneurial spirit (F2) and organizational change (F6) have a direct relation; entrepreneurs spirit influences a company’s decision to change its strategies, policies, structure, technology to improve performance and business growth. In fact, the entrepreneurs should have periodic review of the process and also adapt their business model as per the situations. Organizational change (F6) influences entrepreneurial spirit (F2): On the other hand, organizations attitude to change its practices, strategies etc influences the spirit of the entrepreneurs.

© IEOM Society International
Level II: Level two have two factors, which are factor 3 and 5

Innovativeness (F3) has an influence on level one factor, team building (F4): Entrepreneurs introducing new ideas, product, process, business concepts influence the good team building which helps in motivating the people to work together and encourage in collaborating in work routines and practices. Innovativeness (F3) influences the second level factor, technology (F5): The use of new and advanced production practices strongly influences the level of technology incorporated in the business. More the attitude of the entrepreneurs to innovate more they are obliged to use technology. In addition, low-cost innovation is witnessed to be the key to minimize the supply chain disruptions caused by the pandemic. Innovativeness (F3) has significant influence on level one factor, marketing opportunities (F7): More innovative the MSMEs are, more the opportunities for the enterprises to market their offerings. When the pandemic bought havoc in the sector, MSME’s intention to innovate influence the marketing opportunities.

Technology (F5) influences the second level factor, innovativeness (F3): Level of advanced techniques, skills, methods and processes influence the innovativeness that enterprises engage in. MSME’s using advanced technology were more innovative in their ideas, products and business practices. Technology (F5) strongly influences the level one factor, team building (F4): Technology is building teams by creating more engaging, immersive experiences for employees. Tech-based activities in the MSME’s encourage teams to work cohesively and also improves communication, creative thinking and problem-solving skills. Technology (F5) influences strongly influences level one factor, marketing opportunities (F7): Technology plays a major role in seeking marketing opportunities for the businesses. During the pandemic, many MSME’s relied on social media, e-commerce and other web portals to increase their marketing opportunities.

Level I: Level one has two factors, which are factor 4 and factor 7
All other factors (except F7) influence first level factor 4 and all other factors (except F4) influence first level factor 7. Government support, entrepreneurial spirit, innovativeness, technology, organizational change are the factors which influence team building. Team which works cohesively and effectively together are influenced by the support, initiatives and schemes taken by the government, entrepreneurs’ attitude to change, innovate and technology adopted by the enterprises. Government support, entrepreneurial spirit, innovativeness, technology, organizational change are the factors which influence marketing opportunities. Enterprise’s ability to identify and access new opportunities is influenced by the government initiatives, entrepreneurs’ attitude to change, innovate and alter their business operations.

4.2 MICMAC analysis
MICMAC involves categorization of the identified factors into four classes (Suresh et al. 2021; Suresh et al. 2019a; Suresh et al. 2019b; Suguna et al., 2022), and it’s shown in Table 5.

<table>
<thead>
<tr>
<th>Class</th>
<th>Factor's classification</th>
<th>Driving power</th>
<th>Dependence</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class-I</td>
<td>Autonomous</td>
<td>Weak</td>
<td>Weak</td>
<td>• Nil</td>
</tr>
<tr>
<td>Class-II</td>
<td>Dependent</td>
<td>Weak</td>
<td>Strong</td>
<td>• Team building</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Marketing opportunities</td>
</tr>
<tr>
<td>Class-III</td>
<td>Linkage</td>
<td>Strong</td>
<td>Strong</td>
<td>• Innovativeness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Technology</td>
</tr>
<tr>
<td>Class-IV</td>
<td>Driving</td>
<td>Strong</td>
<td>Weak</td>
<td>• Government support</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Entrepreneurial spirit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Organizational change</td>
</tr>
</tbody>
</table>

As per the MICMAC analysis, the factors influencing MSMEs performance is ranked in Table 6.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Driving power</th>
<th>Dependence</th>
<th>Driving power / Dependence</th>
<th>MICMAC rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>F2</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>F3</td>
<td>4</td>
<td>5</td>
<td>0.8</td>
<td>3</td>
</tr>
</tbody>
</table>
F4 | 1.0 | 6.0 | 0.166 | 4.0
F5 | 4.0 | 5.0 | 0.8 | 3.0
F6 | 6.0 | 3.0 | 2.0 | 2.0
F7 | 1.0 | 6.0 | 0.166 | 4.0

<table>
<thead>
<tr>
<th>Zone-IV</th>
<th>Zone-III</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>F1</td>
</tr>
<tr>
<td>6</td>
<td>F2, F6</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>F3, F5</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>F4</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Driving Power

Dependence

Figure 2 depicts the MICMAC graph. Table 6 shows the ranking of the factors influencing MSMEs performance. According to the ranking, Government support is the topmost triggering factor, that ranked one. Team building and marketing opportunities are the factors that are ranked fourth in the MICMAC analysis ranking.

5. Managerial/ Practical Implications
The current study has analysed the interrelationship between the factors influencing the MSME performance. The first importance has been given to covid-19 relief measures taken by the government especially with respect to credit and finance which will ensure the lift-off of the sector financially. The next priority has been given to entrepreneurial spirit and organizational change which will help in enhancing the internal environment of the MSMEs and also improves their ability to face challenges due to the pandemic. Innovativeness and technology are given further priority. MSME’s key to survive pandemic is innovative ideas and solution and the adoption of technology which will help in enhancing the competitiveness of the enterprises towards sustainability and inclusive growth. The least importance is given to team building and marketing opportunities. Factors, F1, F2 and F6 are the priority driving factors have maximum influence on the MSMEs. Hence, the enterprises must employ these factors in order to overcome the pandemic. Factors F4 and F7 were found to be influenced by all of the other selected factor i.e., changes in any one of the other factors will inflict a change on these dependent factors.

6. Conclusion
This study identified the influencing factors by using TISM approach to implement survival strategies for the MSMEs performance. The key important factors identified are Government support, entrepreneurial spirit, and organizational change. The main key factor is government support which has an impact on the factors like entrepreneurial spirit, innovativeness and technology. Entrepreneurial spirit will decide the internal environment of the MSME and also adds up to innovativeness. Organizations attitude to change its practices, strategies etc influences the spirit of the entrepreneurs. Innovativeness influences the technology adopted by the MSME’s and also enhances the marketing opportunities of the business. On the other hand, technology influences innovativeness and the ability to meet customer needs. There is limitation in the present study. Firstly, the expert opinions are confined to one country. Second, survey is used to develop a theoretical model, which is based on the expert opinions. In such a case it is not possible to avoid the biasness from experts.

References

© IEOM Society International
Proceedings of the International Conference on Industrial Engineering and Operations Management Manila, Philippines, March 7-9, 2023


© IEOM Society International


**Biographies**

**B.U. Sivakami** is an MBA final year student at Amrita School of Business, Amrita Vishwa Vidyapeetham, Coimbatore, India. Her research interests include business analytics, MSMEs, operations management, project management. She is currently working on service operations.

**Suresh M.** is an Associate Professor at Amrita School of Business, Amrita Vishwa Vidyapeetham, Coimbatore, India. He holds a PhD in Project Management from Indian Institute of Technology, Bombay, India and Master’s in Industrial Engineering from PSG College of Technology, Coimbatore, India. His research interests include issues related to lean and agile operations and performance management. He has authored several papers in Operations Management. He is also a member of International Society on Multiple Criteria Decision Making.

© IEOM Society International