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Mapping Critical Success Factors Across MSME Enterprise Status: A Correspondence Analysis Approach in Telangana

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Abstract

Study focus on the relation with the Critical Success Factors(CSFs) and the status of the enterprise with the Micro, Small and Medium Enterprises (MSMEs) sectors in the state of Telangana, India. Random sampling from the MSME units with udyam registrations are considered for the data collection by using a structured questionnaire. Correspondence Analysis is done to identify the relation among the CSFs and MSME status. Findings of the research include that Market related and management factors are inclined by Micro Enterprises, whereas technological, government and social factors are closely associated with the Small Enterprises; Individual and financial factors obsessed Medium Enterprises. Strategic decision making for the MSME development is the need identified along with the policy interventions to be modified according to the market requirements. Suggestions of the study include: success rate of Micro enterprises is enhanced through the integration of individual, technological and financial factors. Personal leadership and financial planning can be encouraged to strengthen the Small enterprsies and the Medium enterprises benefit with the study of market dynamics, innovation in technology and knowledge on government schemes.

Keywords: Micro, Small and Medium Enterprises (MSMEs), Critical Success Factors (CSF), Entrepreneurial Success, Enterprise Status.

1. Introduction

Current research is focused on Micro, Small and Medium business which is significant to know the basic understanding of MSME in Indian perspective. The classification of Micro, Small and Medium categories include: An enterprise comes under the category of Micro category when the investment in machinery, equipment and plant is maximum of 2.5 crore rupees, and the turnover is not more than rupees 10 core. An enterprise comes under the category of Small category if the investment in machinery, equipment and plant is maximum of rupees 25 crore and the turnovershould is not more than 100 core rupees. An enterprise comes under the category of Medium when the investment in machinery, equipment and plant is maximum of rupees 125 crore and the turnover is not more than 500 core rupees (Ministry of MSME, Govt. of India. Hence the current research is focused on the impact of Critical Success Factors (CSF) in the success of MSMEs. There are many CSF that influence entrepreneurs towards the success of enterprise like government, social, economic, market, finance, technology

and management. So, researcher recognized the need to reconnoiter theCSF leading towards the status of the enterprise.

Objective

To identify the most dominant CSF with respect to the enterprise status(MSME)

2. Literature Review

The study identified seven CSFs swaying the entrepreneurs success within the MSME sector: Government, Individual, Social, Economic & Financial, Market-related, Technology & Infrastructure, and Management factors. Further, the research advanced to emphasize these factors in terms of their relative impact on the entrepreneurial success of entrepreneurs in the MSME context (Machani et.al., 2022). Government support plays a essential role in nurturing entrepreneurial fineness by facilitating access to technical skill development, financial and infrastructural resources, and secure credit at minimal interest rates. It also contributes through the diffusion of best practices from successful ventures and by assisting in steering legal complexities and socio-cultural barriers that often hamper entrepreneurial growth in boosting the enterprise performance (Gupta & Mirchandani, 2018). Psychological theory of entrepreneurship emphasizes on optimism, opportunity driven mindset and innovation that could be essentially motivated towards the attainment of emotional balance in overcoming the challenges of uncertainty (Simpeh, 2011). Study examines the required personality traits such as knowledge, access to the information, independence, risk taking ability, internal locus of control and thrive for achievement (Gomezelj & Kušce, 2013; Tweneboah & Machani, 2023). Researchers in the stream of social entrepreneurship remark the market space of local community and foster the social capital through the community members alliance. This role of research and development process is crucial in addressing the technical and social issues, at the same time an opportunity appreciation and skill assessment could be in the positive note (Zahra et al.,2014). For the long term sustainability, behavioural attributes such as self efficacy, ethical conduct, empathy and motivation could support in the sustainability of the business. These bahvioral traits shapes the adaptive capacity in dynamic environment and stakeholders trust (Tur-Porcar et al., 2018). Studies on the societal wits to be highlighted that could result in discouraging gender discrimination resulting the success rate of women led business (Xie & Lv, 2016). Though social capital is not the only determinant, still factors such as social networks and social trust could influence the entrepreneurial journey (Afandi, et al., 2017). Enterprise success depends on several factors such as a thoughtful consideration towards Return on Investment, operational efficiency, cashflow management, expansion of market share and sustainable growth (Machani et al., 2021). Further, emerging opportunities, new market and product lines serves as the strategic focus on continuous learning and technological development essential for the future competition (Forsman, 2008). With the context of market related factor it is observed that market approach relevancy is more relevant in identifying the consumer market segments along with the organizational desire in identifying its potential value proposition. Concluding phase involves the implementation of strategic market plans in enforcing the sustainable relations (Tripathi & Siddiqui, 2012). Sustainable entrepreneurship can be derived through the commitment of societal impact where few business owners choose to setup their ventures guided by sustainable values and commitment in bringing the social impact. This could happen by adopting environmentally friendly practices and business models (Fischer et al., 2018).

The business development spiral encompasses a range of influential elements, among which entrepreneurial factors play a vital role in shaping the success of a business project. Within the entrepreneurial dimension, the study enlightened key factors such as the power of intention, opportunity recognition, leadership capabilities, and active employee participation as central to the research focus (Astebro, 2004; Antonites & Govindasamy, 2013).

3. Research Methodology

Current research is erected on the primary data from Telangana state. Study is emphasized on micro, small and medium entrepreneurs with udhayam. Research considered entrepreneurs from Micro, Small and Medium categories. Information is furnished to collect the data by using survey method; a structured questionnaire is used for the same.

Sample Design: *Data is availed from the MSMEs list is finite data as per the Commissioner of Industries, Hyderabad*

Hypothesis: H1: There is a significant association between CSF and Enterprise Status

Table 1: MSMEs in Telangana State

Micro enterprises	Small enterprises	Medium enterprises
24200	6729	157

Source: Compiled from Primary data

Population: *Sample population is from Micro, Small and Medium entrepreneurs, MSME list is obtained from the Commissioner of Industries, Hyderabad who registered with Udyam for the survey.*

Sample Unit: *MSME founders or management from Telangana are considered for the study.*

Sampling Technique: Random Sampling, a type of probabilistic sampling.

Data Collection Method*: Data for the current research used the survey method with structured questionnaire.*

Sample Size Determination

From Micro Enterprises, 493 questionnaires were distributed. Out of which 18 respondents are unanswered all the questions and 16 questionnaires were not received from the respondents. Finally,the researcher proceeded with 459 valid responses. Though, the Chochran's formula returned 379 as sample size, the researcher considered total 459 valid responses as sample size for Micro Enterprises with the response rate of 93%.

Researcher proceeded with 474 questionnaires towards Small entrepreneurs. Only 37 respondents were partially filled and 46 people did not responded. The researcher received 391 valid responses towards Small scale entrepreneurs with 82.5%response rate.

Towards the medium scale entrerpeneurs 146 questionnaires were distributed. Outof all 26 respondents were partially unanswered and 30 questionnaires were not received from the respondents. Finally, the researcher received 90 valid responses from the respondents with 61.5% ofresponse rate. So, the total sample size considered for the study is 940 (Micro is 459, Small is 391 and Medium is 90).

Statistical Tools used for the Analysis

Correspondence Analysis is performed to visualize the association among CSF and Enterprise status

4. Analysis and Inferences

Objective of this analysis is to depict the graphical representation Greenacre, (2010) of Enterprise Status (Micro, Small and Medium Enterprises) being an axis and CSF (Government Factor,Individual Factor, Social Factor, Financial Factor, Market Related Factor, Technological Factor, Market Related Factor and Management Factor) being the otheraxis. As it is of two dimensional, for the Row and Columns, the categorical data only be accepted. The table 2 is depicting rows and column position and their relation.

Table 2: Correspondence Table

Status of the Business	Critical Success Factors							
	overnment Factors	vidual Factors	Social Factors	ancial Factors	Market Related Factors	Techno logical Factors	lanagement Factors	Active Margin
Micro	884	872	908	797	891	875	869	6096
Small	880	808	882	831	848	878	741	5868
Medium	842	869	883	865	859	866	794	5978
Active Margin	2606	2549	2673	2493	2598	2619	2404	17942

Source: Compiled from Primary data

The data from table 2 is of Enterprise status and CSF. It is observed from the table that, the row and column wise active margins are the sum of frequencies of respective row and columns.

Table 3: Correspondence Table – Row Profiles

Status of the Business	Critical Success Factors							
	Govern ment Factors	Individual Factors	Social Factors	Financial Factors	Market Related Factors	Techno logical Factors	Manage ment Factors	Active Margin
Micro	.145	.143	.149	.131	.146	.144	.143	**1.000**
Small	.150	.138	.150	.142	.145	.150	.126	**1.000**
Medium	.141	.145	.148	.145	.144	.145	.133	**1.000**
Mass	.145	.142	.149	.139	.145	.146	.134	

Source: Compiled from Primary data

Table 3 is depicting the weighted frequency for each row. The sum of allweighted frequencies of one row will be equal to 1 i.e. Active margin. The division of each row point with its respective active margin (Table 2) gives row profile (Table 3). Similar procedure is followed to derive column profiles and is depicted in Table 4

Table 4: Correspondence Table – Column Profiles

Status of the Business	Critical Success Factors							
	Governm ent Factors	Individual Factors	Social Factors	Financ ial Factors	Market Related Facto Rs	Technological Factors	Management Factors	Acti ve Margin
Micro	.339	.342	.340	.320	.343	.334	.361	.340
Small	.338	.317	.330	.333	.326	.335	.308	.327

Medium	.323	.341	.330	.347	.331	.331	.330	.333
Active Margin	1.000	1.000	1.000	1.000	1.000	1.000	1.000	

Source: Compiled from Primary data

Table 5 : Summary Table

Dimension	ingular Value	Inertia	Chi Square	Sig.	portion ofInertia		ice SingularValue	
					Accoun ted for	mulative	Standard Deviation	Correlation
								2
1	.024	.107			.726	.726	.007	-.006
2	.015	.061			.274	1.000	.007	
Total		.168	14.765	.255a	1.000	1.000		
a. 12 degrees of freedom								

Source: Compiled from Primary data

The high correspondence of rows and columns leads to high chi-square value. The significant value in the table 5 is observed with the significance of 1% level and the chi-square value is 14.765 for two dimensions. The total of inertia column explains the total difference i.e., 16.8%. Out of the total difference, dimension 1 explains 10.7% and the other dimension explains 6.1%.

Table 6: Overview Row Points

Source: Compiled from Primary data

Bank	Mass	Score in Dimension		Inertia	Contribution				
		1	2		int to Inertiaof Dimension		)imension toInertia of Point		
					1	2	1	2	Total
Micro	.340	.207	.053	.072	.597	.063	.962	.038	1.000
Small	.327	-.167	.118	.044	.372	.301	.766	.234	1.000
Medium	.333	-.048	-.169	.052	.031	.636	.115	.885	1.000
Active Total	1.000			.168	1.000	1.000			

Table 7: Overview Column Points

Source: Compiled from Primary data

Retention	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Point to Inertiaof Dimension		tical to Inertiaof Point		
					1	2	1	2	Total
Government Factors	.145	-.057	.195	.056	.020	.368	.123	.877	1.000
Individual Factors	.142	.073	-.158	.010	.031	.236	.260	.740	1.000
Social Factors	.149	-.015	.055	.024	.001	.030	.108	.892	1.000
Financial Factors	.139	-.240	-.177	.045	.327	.289	.750	.250	1.000
MarketRelated Factors	.145	.036	.035	.034	.008	.012	.641	.359	1.000
Technological Factors	.146	-.099	.073	.000	.058	.051	.751	.249	1.000
Management Factors	.134	.318	-.038	.000	.555	.013	.991	.009	1.000
Active Total	1.000			.168	1.000	1.000			

The tables 6 and 7 presents the procedure of the way each point of row and column is plotted in the bidimensional model. The Mass column in those tables are portraying the proportion of Status of Enterprise & CSF. The column 'Score inDimension' is describing the coordination of each and every dimension positioned in the biplot. In table 2, it is observed that 'Micro Scale' is heavily loaded on Dimension1 and on the other hand, in the table 7, it is noted that 'Management Factors' is loaded high in dimension 1.

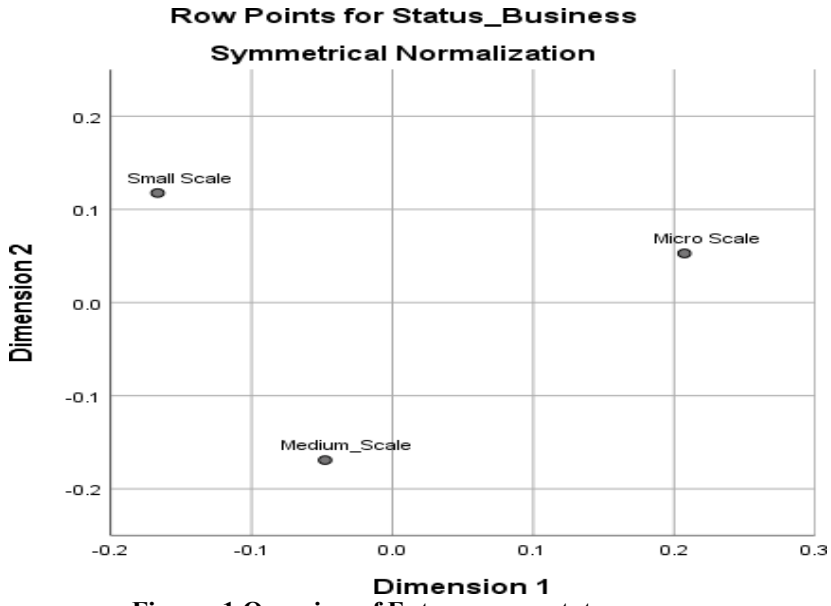

Figure: 1 Overview of Entrepreneur status

Source: Compiled from Primary data

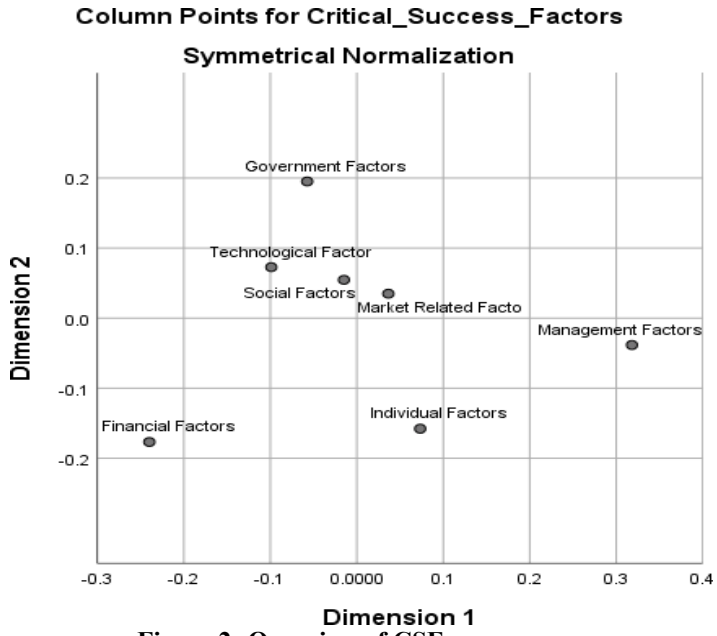

Figure 2: Overview of CSF

Source: Compiled from Primary data

The trend power from the data is observed through the distance among each point in the above figures. The distance among the points portrays similarities and dissimilarities. The points with the samilar profiles are closely related and the far distance between the points indicates that the points are of different profiles. For this, symmetrical normalization techniques are adopted.

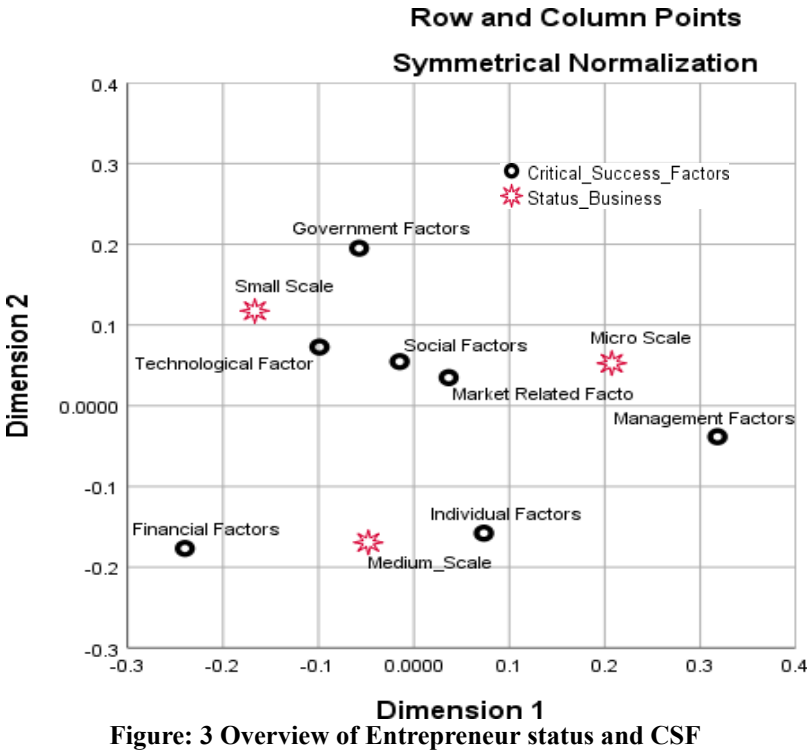

Figure: 3 Overview of Entrepreneur status and CSF

Source: Compiled from Primary data

The above bi-dimensional chart is the sensitivity towards CSF with respect to each enterprise's status. In 'Small Scale', it is examined that the three items of CSF i.e., 'Government Factors', Technological Factors' and 'Social

Factors' are closely associated, which indicatres the small scale entrepreneurs are influenced by them. For the Micro Scale, the entrepreneurs are attracted towards 'Management Factors' and 'Market related factors'. For 'Medium Scale', the entrepreneurs are attracted towards 'Financial Factors' and 'Individual Factors'.

5. Findings and Suggestions

Out of 940 enterprises, 459 i.e., 48.8% are of Micro scale followed by small scale with 41.6% (391) and the medium scale enterprises occupied 9.6% i.e., 90. The bi-dimensional chart is the sensitivity of CSF with respect to each enterprise's status. From 'Small Scale', it clarifies that the three items of CSF i.e., 'Government Factor', 'Technological Factor' and 'Social Factor' are associated closely, which means that the small scale entrepreneurs are influenced by factors. For the Micro Scale, the entrepreneurs are getting attracted towards 'Management Factor' and 'Market related Factor'. For 'Medium Scale', the entrepreneurs are getting attracted towards 'Financial Factor' and 'Individual Factor'.

The study reveals that micro-scale entrepreneurs are influenced by market-related and management factors. However, emphasing their focus to include other CSFs could potentially increase their success rates. Small-scale entrepreneurs tend to be drawn towards government support, technological advancements, and social factors. To improvise their performance, it is recommended to focus on financial and individual-level factors. Medium scale entrepreneurs focused on the individual and financial factors that could bring the success along with the integration of CSFs into their strategic approach.

Implications of the study:

1. The intuition of the current research can be integrated in the NIMSME's Entrepreneurship Development Programs that could serve as a game changing weapon to nurture the potential entrepreneurs.

2. Findings of the study can be considered by the Office of the Commissioner of Industries and District Industrial Centers to engage the MSME owners in improving their prospects for sustained success.

3. Results of the study is valid across various entrepreneurial models like social, frugal and green entrepreneurship, that could be evident for balanced regional development.

4. Study findings can be circulated in training and capacity building initiatives to inspire business owners in embarking their journey with commitment.

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