

Enterprise Profile and Structural Associations among Micro, Small and Medium Enterprises: An Empirical Study from Gujarat, India

Siva Krishna Golla¹, Prof. Dr. Haresh Barot², Vengalarao Pachava³,
Priyanka Yadav⁴

^{1,4}Assistant Professor, School of Management Studies, National Forensic Sciences University,
Gandhinagar, India

²Professor, School of Management Studies, National Forensic Sciences University, Gandhinagar, India

³Assistant Professor, Department of Management Studies, NALSAR University of Law, Hyderabad,
India

Abstract

This study examines enterprise profile characteristics and structural associations among 715 Micro, Small and Medium Enterprises (MSMEs) in Gujarat, India. Grounded in Resource-Based View (RBV) theory (Barney, 1991; Wernerfelt, 1984), Firm Life Cycle (FLC) theory (Miller & Friesen, 1984; Dickinson, 2011), Human Capital Theory (Becker, 1964), and Spatial Embeddedness theory (Granovetter, 1985; North, 1990), five theoretically anchored hypotheses are tested through Pearson chi-square tests of independence and Cramer's V effect size analysis. Primary data were collected from rural and semi-urban districts via purposive-cum-convenience sampling (January–March 2024). All five null hypotheses are rejected at $p < 0.001$, yielding Cramer's V values between 0.232 and 0.443. The strongest association is between Type of Business and Number of Employees ($\chi^2 = 285.282$, $V = 0.443$), confirming sector-driven workforce heterogeneity predicted by RBV. Enterprise Age and Annual Turnover exhibit a moderate association ($V = 0.285$), validating FLC revenue accumulation dynamics. Number of Employees and Annual Turnover are also moderately associated ($V = 0.262$). Location Type is moderately associated with both Business Type ($V = 0.252$) and Financial Decision-Making ($V = 0.232$), reflecting spatial embeddedness constraints. Findings carry direct implications for differentiated MSME policy design at the state level.

Keywords: MSMEs, enterprise profile, Gujarat, chi-square analysis, Resource-Based View, Firm Life Cycle, Human Capital, Spatial Embeddedness, structural associations

1. Introduction

Micro, Small and Medium Enterprises (MSMEs) constitute a cornerstone of India's economic architecture, contributing approximately 30.1% of GDP, accounting for 35.4% of manufacturing output, and employing over 110 million people across the country (Press Information Bureau [PIB], 2024; Ministry of MSME, 2023). As of February 2026, more than 7.86 crore MSMEs are registered on the Udyam Registration Portal, reflecting rapid formalisation of the enterprise base (PIB, 2024). Gujarat, one of India's most

industrialised states, is home to over 15.53 lakh Udyam-registered units and hosts a vibrant manufacturing-oriented MSME ecosystem, particularly in its semi-urban industrial corridors (ICRIER, 2023; Shaikh & Mandviwala, 2023).

Despite the sector's macroeconomic prominence, empirical evidence on the internal structural profile of MSMEs-the inter-relationships among enterprise characteristics such as sector, scale, location, age, and financial governance-remains fragmented at the sub-state level. Most extant scholarship focuses on MSME performance outcomes, credit access, or export competitiveness, without systematically mapping how enterprise-level categorical variables are structurally associated with one another (Beck et al., 2005; Ayyagari et al., 2011; Krishnan & Scrase, 2021). This gap is consequential for evidence-based policy design: effective enterprise development programmes must be anchored in an accurate mapping of structural heterogeneity within the target population.

The present study addresses this gap by testing five theoretically grounded hypotheses concerning structural associations among key enterprise and owner-demographic variables in a cross-sectional sample of 715 Gujarat MSMEs. The study makes three contributions. First, it provides a theoretically anchored analysis of enterprise structural associations by integrating four complementary theoretical frameworks: RBV, FLC theory, Human Capital Theory, and Spatial Embeddedness theory. Second, it employs a dual-criterion statistical approach-chi-square tests of independence supplemented by Cramer's V effect size-to rigorously quantify both the statistical significance and practical magnitude of each association. Third, it generates policy-relevant evidence on the structural geography of Gujarat's MSME ecosystem, with direct implications for enterprise development programme design.

2. Theoretical Framework

2.1 Resource-Based View (RBV)

The Resource-Based View, originally articulated by Wernerfelt (1984) and subsequently elaborated by Barney (1991), posits that enterprises possess heterogeneous bundles of resources-including tangible assets, human capital, and organisational capabilities-that are imperfectly mobile across firms. Competitive advantage accrues to enterprises whose resource endowments are valuable, rare, inimitable, and non-substitutable (Barney, 1991). In the context of MSMEs, RBV implies that observable structural characteristics such as workforce scale, revenue generation capacity, and sector participation reflect the depth and configuration of an enterprise's resource base (Teece et al., 1997).

Sector type is particularly central to an RBV analysis of MSMEs. Manufacturing enterprises require elaborate physical capital configurations-plant, machinery, raw material logistics, and assembly labour-that necessitate larger human capital inputs relative to trading or service enterprises (Ayyagari et al., 2011). This resource heterogeneity between sectors generates the prediction that Type of Business and Number of Employees are structurally linked (H01). Penrose (1959), whose work laid the intellectual foundations for RBV, further argued that a firm's productive services-the services rendered by its physical and human resources-are the proximate determinants of growth and revenue capacity, directly motivating H03 (Number of Employees $\times$ Annual Turnover).

2.2 Firm Life Cycle Theory

Miller and Friesen (1984) advanced the Firm Life Cycle (FLC) framework, which proposes that enterprises progress through identifiable stages-birth, growth, maturity, revival, and decline-each characterised by distinctive strategic orientations, organisational configurations, and financial profiles.

Dickinson (2011) operationalised FLC stages using cash flow patterns, demonstrating differential persistence of firm profitability across life cycle stages.

FLC theory generates two key predictions relevant to the present study. First, older enterprises are expected to exhibit larger annual turnovers, reflecting the accumulation of market relationships, operational efficiencies, and reputational capital over time (H02: Age of Enterprise $\times$ Annual Turnover). Second, workforce scale should co-vary with revenue generation, since larger employee bases reflect productive capacity that translates into output and sales (H03). Habib and Hasan (2019), reviewing a large body of FLC empirical research, confirm that firm age and employment scale are robust correlates of financial performance across life cycle stages.

2.3 Human Capital Theory

Becker (1964) established that investment in education and on-the-job training enhances the productivity and earnings capacity of individuals and, by extension, the enterprises in which they participate. Human capital theory implies that owner educational attainment shapes enterprise decision-making quality, including financial decision patterns (Becker, 1964; Kochar et al., 2022). Graduate-level education is associated with greater openness to external advisory engagement and structured financial planning, while below-graduate education is associated with self-directed financial management—a pattern particularly relevant to understanding the distribution of financial decision-making modes observed in the present sample.

2.4 Spatial Embeddedness and Institutional Constraints

Granovetter's (1985) spatial embeddedness perspective argues that economic action is embedded in structures of social relations and geographic context rather than occurring in institutional isolation. Building on North's (1990) institutional framework, which emphasises how formal and informal institutions shape economic behaviour, this perspective predicts that enterprise structure reflects not only internal resource configurations but also the local institutional environment. Rural versus semi-urban location affects enterprise type distribution through the differential availability of infrastructure, transport connectivity, and market access. It further constrains the availability of external financial advisory services, which are more densely distributed in semi-urban areas (H04: Location $\times$ Business Type; H05: Location $\times$ Financial Decision-Making).

3. Review of Literature

3.1 MSMEs and Economic Development

The developmental significance of MSMEs has been extensively documented in the international literature. Beck et al. (2005), using a cross-country sample of 45 economies, found a strong positive association between the share of SME labour in total manufacturing employment and GDP per capita growth, establishing the macro-economic salience of the sector. Ayyagari et al. (2011), in a major World Bank study covering developing countries, demonstrated that small firms (under 20 employees) account for the largest share of job creation and exhibit the highest sales growth rates even after controlling for firm age. These findings underscore the importance of understanding structural heterogeneity within the MSME sector, particularly in rapidly industrialising states such as Gujarat.

In India, MSMEs contribute approximately 30.1% of GDP, 35.4% of manufacturing output, and 45.73% of total exports (PIB, 2024). The ICRIER (2023) Annual Survey of MSMEs, covering 2,007 enterprises across major cities including Ahmedabad in Gujarat, documented that 65% of surveyed enterprises were micro, 19% small, and 16% medium, with significant heterogeneity in e-commerce integration, turnover,

and sectoral participation. Shaikh and Mandviwala (2023), focusing specifically on Gujarat, highlighted the state's role as a premier MSME ecosystem driven by manufacturing cluster activity, noting that the industrial sector hosts over 603,000 MSMEs employing more than 3.85 million people.

3.2 Enterprise Size, Sector, and Structural Heterogeneity

The relationship between enterprise sector and workforce size is one of the most consistently documented findings in the MSME literature. Ayyagari et al. (2011) demonstrated across developing economies that manufacturing MSMEs are disproportionately represented in the 20–100 employee bracket, while service and trading enterprises cluster in the micro (under 10 employees) category. This labour-intensity differential is attributable to the production technology embedded in each sector: manufacturing requires assembly-line operations and physical transformation of inputs, generating larger and more stable employment demands relative to trading or service provision.

Porter (1980) established that industry structure shapes firm-level resource requirements and competitive posture, with manufacturing firms facing distinct capital-labour intensity ratios relative to service firms. These insights, developed within the industrial organisation tradition, complement RBV by establishing that sector membership is a primary categorical determinant of resource configuration. Teece et al. (1997) extended this logic through the dynamic capabilities framework, arguing that firms in different sectors develop distinct capability profiles and organisational architectures to manage their resource portfolios.

3.3 Firm Life Cycle, Age, and Revenue Accumulation

The association between enterprise age and financial performance has deep theoretical roots in FLC theory (Miller & Friesen, 1984) and the growth-of-the-firm literature (Penrose, 1959). Habib and Hasan (2019) reviewed extensive empirical evidence confirming that corporate life cycle stage is a significant determinant of firms' financial reporting characteristics, risk profiles, and revenue scale. Dickinson (2011) provided a robust empirical operationalisation of FLC stages, demonstrating that profitability and revenue patterns are non-linearly associated with firm age and exhibit differential convergence across life cycle stages.

In the MSME context, surviving enterprises that have passed their initial birth-stage vulnerability typically exhibit progressively larger revenue bases, reflecting accumulated market relationships, brand recognition, and operational efficiencies. This pattern has been documented in the Indian MSME literature: enterprises aged over 10 years are disproportionately represented in higher revenue categories, consistent with the revenue accumulation trajectory predicted by FLC theory (Ministry of MSME, 2023). The workforce–revenue nexus (H03) is similarly grounded in the production function logic of FLC theory: larger employee bases reflect invested productive capacity that generates proportionate output and sales.

3.4 Gender, Education, and Human Capital in MSMEs

Human Capital Theory (Becker, 1964) provides the theoretical foundation for examining how owner educational attainment shapes enterprise decision-making and financial management practices. Graduate-level education is associated with greater awareness of formal financial products, structured business planning, and openness to external advisory engagement (Becker, 1964). The IFC (2022), in a study of women-owned MSMEs in India, documented that over 90% of women entrepreneurs had not availed financing from formal financial institutions, attributing this pattern partially to educational deficits and limited awareness of formal financial products.

Gender composition in India's MSME sector reflects deep institutional constraints. National data from the Udyam Portal indicate that women-owned MSMEs constitute only 20.5% of registered enterprises, with women owning just 5% of small and 2.6% of medium enterprises—a sharp drop-off as enterprises scale up

(Changeincontent, 2025). Women-owned micro-enterprises are more commonly located in rural areas than urban centres, and exhibit significantly smaller employment bases (95% with fewer than six workers) relative to male-owned enterprises (IFC, 2022). These patterns reflect the interaction of human capital endowments, institutional constraints, and spatial embeddedness in shaping the structural profile of the female entrepreneurship segment.

3.5 Location, Geography, and Financial Decision-Making

The spatial distribution of MSMEs in India exhibits systematic rural-urban differentiation. The MSME Annual Report (Ministry of MSME, 2023) confirms that rural MSMEs account for 51% of total enterprises but generate only 45% of employment, reflecting their predominantly micro, informal, and subsistence-oriented character. In contrast, urban and semi-urban MSMEs show greater diversification across enterprise sizes and higher average employment intensity. Agarwal and Behera (2023), using district-level Economic Census data, documented that knowledge-intensive and manufacturing service industries are spatially concentrated in urban and semi-urban areas, while rural areas host disproportionately large shares of cottage and trading enterprises—a pattern consistent with the spatial embeddedness perspective.

Financial decision-making patterns within MSMEs are shaped by the institutional density of the local environment. Kochar et al. (2022), using data from India's National Rural Livelihoods Programme, found that geographic access to formal financial institutions significantly shapes the financial decision-making behaviour of small enterprise owners. Rural entrepreneurs, facing lower institutional advisory density, are more likely to rely on self-directed financial management. North (1990) provided the broader institutional framework within which this pattern can be understood: informal institutional constraints—including social norms about financial management and low expectations of formal advisory engagement—are more prevalent in rural areas and shape economic behaviour independently of individual human capital endowments.

4. Research Methodology

4.1 Research Design

This study adopts a quantitative, cross-sectional descriptive research design. Primary data were collected through a structured questionnaire administered to MSME proprietors, partners, managers, and finance personnel across rural and semi-urban districts of Gujarat. The questionnaire was pre-tested with 30 respondents and refined prior to main data collection based on pilot feedback regarding item clarity and response option comprehensiveness.

4.2 Sample and Data Collection

A purposive-cum-convenience sampling strategy yielded a final sample of $N = 715$ valid respondents. Surveys were administered between January and March 2024. Mode imputation was applied to address item-level missing data ($< 2\%$ per variable), ensuring complete data across all analytical variables. The sample encompasses enterprises from three business type categories (Manufacturing: 68.7%; Trading: 25.2%; Services: 6.2%) and two location types (Rural: 29.8%; Semi-Urban: 70.2%), consistent with the enterprise composition of Gujarat's Udyam-registered base (Shaikh & Mandviwala, 2023).

4.3 Variables

Eleven categorical variables were measured: Type of Business, Age of Enterprise, Location Type, Number of Employees, Annual Turnover, Gender, Age Group, Educational Qualification, Position in Enterprise, Years of Association, and Financial Decision-Making. These variables capture RBV-relevant resource dimensions (sector, workforce scale), FLC-relevant maturity indicators (enterprise age, annual turnover),

Human Capital dimensions (educational qualification), and Spatial Embeddedness dimensions (location type, financial decision-making mode).

4.4 Statistical Analysis

Descriptive statistics (frequency, percentage, cumulative percentage) were computed for all eleven variables. Pearson chi-square tests of independence were applied to five theoretically motivated variable pairs at a significance threshold of $\alpha = 0.05$. Effect size was quantified using Cramer's V, interpreted per Cohen's (1988) benchmarks: Negligible (< 0.10), Weak ($0.10-0.19$), Moderate ($0.20-0.39$), Relatively Strong (≥ 0.40). All analyses were performed using SPSS v26.0.

4.5 Research Hypotheses

Five null hypotheses are formulated, each deriving from the multi-theoretic framework outlined in Sections 2 and 3:

H₀₁: There is no significant association between Type of Business and Number of Employees.

H₀₂: There is no significant association between Age of Enterprise and Annual Turnover.

H₀₃: There is no significant association between Number of Employees and Annual Turnover.

H₀₄: There is no significant association between Location Type and Type of Business.

H₀₅: There is no significant association between Location Type and Financial Decision-Making.

5. Results

5.1: Descriptive Statistics of Enterprise Profile

Table 1 presents the frequency distribution of all eleven categorical variables across the 715 respondents. The sample reveals a predominantly manufacturing-oriented (68.7%), semi-urban (70.2%), male-owned (97.8%) MSME landscape. Most enterprises are in the early growth stage per FLC theory (Miller & Friesen, 1984), with 37.8% aged 3–5 years and 12.6% under 3 years. The modal employment bracket is 11–50 employees (44.5%), while the largest share of enterprises reports annual turnover in the ₹10–50 lakh range (43.4%). Owner age is predominantly 25–35 years (57.2%), and graduate-level education is modal (50.9%).

Table 1: Frequency Distribution of Enterprise Profile Variables (N = 715)

Variable	Category	n	%	Cum. %	Theoretical Anchor
Type of Business	Manufacturing	491	68.7	68.7	RBV: Resource-intensive sector
	Trading	180	25.2	93.9	
	Services	44	6.2	100	
Age of Enterprise	< 3 Years	90	12.6	12.6	FLC: Introduction/Birth
	3–5 Years	270	37.8	50.4	FLC: Growth
	5–10 Years	134	18.7	69.1	FLC: Maturity
	> 10 Years	221	30.9	100	FLC: Maturity/Revival
Location Type	Rural	213	29.8	29.8	Spatial Embeddedness

	Semi-Urban	502	70.2	100	
No. of Employees	1–10	247	34.5	34.5	RBV: Human Capital (Becker, 1964)
	11–50	318	44.5	79	
	51–100	130	18.2	97.2	
	>100	20	2.8	100	
Annual Turnover	< ₹10 Lakh	47	6.6	6.6	FLC: Revenue accumulation
	₹10–50 Lakh	310	43.4	50	
	₹50L–1 Cr	175	24.5	74.5	
	> ₹1 Crore	183	25.6	100	
Gender	Male	699	97.8	97.8	Institutional constraint (North, 1990)
	Female	16	2.2	100	
Age Group	Below 25	32	4.5	4.5	Human Capital (Becker, 1964)
	25–35	409	57.2	61.7	
	36–45	161	22.5	84.2	
	46–55	82	11.5	95.7	
	Above 55	31	4.3	100	
Financial Decision	Self	330	46.2	46.2	Embeddedness (Granovetter, 1985)
	Shared	202	28.3	74.5	
	Consultant	183	25.6	100	

Source: Authors' calculations from primary survey data.

5.2 Chi-Square Tests of Independence

Table 2 presents consolidated chi-square test results for the five hypotheses. All five null hypotheses are rejected at $p < 0.001$, with Cramer's V values ranging from 0.232 (moderate) to 0.443 (relatively strong). No tested association falls below the moderate threshold, confirming that each identified structural linkage possesses practical as well as statistical significance (Cohen, 1988).

Table 2: Chi-Square Test Results for Five Hypothesised Structural Associations (N = 715)

H ₀	Association Pair	χ^2	df	p-value	Cramer's V	Effect	Decision
H ₀₁	Type of Business × Number of Employees	285.282	6	<0.001	0.443	Rel. Strong	Reject H ₀ ($p < 0.001$)

H ₀₂	Age of Enterprise × Annual Turnover	182.948	9	<0.001	0.285	Moderate	Reject H ₀ (p < 0.001)
H ₀₃	Number of Employees × Annual Turnover	155.736	9	<0.001	0.262	Moderate	Reject H ₀ (p < 0.001)
H ₀₄	Location Type × Type of Business	47.299	2	<0.001	0.252	Moderate	Reject H ₀ (p < 0.001)
H ₀₅	Location Type × Financial Decision-Making	40.283	2	<0.001	0.232	Moderate	Reject H ₀ (p < 0.001)

Source: Authors' calculations from primary survey data.

6. Discussion

6.1 H₀₁: Type of Business and Number of Employees - RBV Prediction Confirmed

The strongest association in the study is between Type of Business and Number of Employees ($\chi^2 = 285.282$, df = 6, p < 0.001, V = 0.443), a relatively strong effect by Cohen's (1988) benchmarks. This finding is strongly predicted by RBV: manufacturing enterprises require labour-intensive physical production processes-assembly operations, raw material handling, quality control-that generate disproportionate concentration in the 51–100 and > 100 employee brackets. By contrast, trading and service enterprises, which rely more heavily on relational capital and information-intensive processes (Teece et al., 1997), cluster in the 1–10 employee micro-category. The finding aligns precisely with Ayyagari et al. (2011), who documented across developing economies that manufacturing firm-type is the single strongest categorical predictor of employment scale within the MSME sector. Porter (1980) offers a complementary explanation from the industrial organisation perspective: different industry structures impose different factor intensity requirements, with manufacturing characterised by high capital-labour complementarity relative to trade.

From an RBV perspective (Barney, 1991; Wernerfelt, 1984), manufacturing MSMEs in Gujarat's semi-urban corridors possess more elaborate physical resource configurations-creating structural asymmetry in human capital requirements between sectors. Penrose (1959) would interpret this pattern as reflecting differential productive service requirements: manufacturing enterprises need larger teams to render the productive services that transform physical inputs into outputs, while trading enterprises require comparatively fewer human resources to intermediate between producers and consumers.

6.2 H₀₂: Age of Enterprise and Annual Turnover - FLC Prediction Confirmed

H₀₂ is rejected ($\chi^2 = 182.948$, df = 9, p < 0.001, V = 0.285), confirming a moderate association between enterprise age and annual turnover. Enterprises over 10 years old are disproportionately represented in the above ₹1 Crore turnover category, while enterprises under 3 years are concentrated in the below ₹10 Lakh bracket. This age-revenue gradient validates the core prediction of Firm Life Cycle theory (Miller & Friesen, 1984): revenue accumulation is a function of enterprise maturation, reflecting the progressive build-up of market relationships, reputational capital, and operational efficiencies. Dickinson (2011) provides the empirical foundation for this interpretation, demonstrating that profitability and revenue metrics are differentially persistent across FLC stages, with mature firms exhibiting significantly higher and more stable financial performance than early-stage firms.

The moderate rather than strong effect size (V = 0.285) is noteworthy. It suggests that enterprise age, while a meaningful predictor of revenue scale, does not fully account for revenue heterogeneity-consistent with

Habib and Hasan's (2019) review showing that sector type and employment scale also significantly contribute to financial performance variation across life cycle stages. The presence of some older enterprises in lower revenue brackets may reflect sector-specific constraints (notably in rural trading) or insufficient capital accumulation, while some younger enterprises in higher revenue brackets may reflect rapid scaling in manufacturing niches.

6.3 H03: Number of Employees and Annual Turnover - FLC and RBV Jointly Confirmed

H03 is rejected ($\chi^2 = 155.736$, $df = 9$, $p < 0.001$, $V = 0.262$), confirming a moderate association between workforce scale and revenue generation. Enterprises with more than 100 employees are strongly concentrated in the above ₹1 Crore turnover bracket, while micro-enterprises (1–10 employees) predominate in the below ₹10 Lakh category. This employment-revenue nexus is jointly predicted by FLC theory-larger productive capacity and more mature organisational routines translate into higher outputs (Miller & Friesen, 1984)-and by RBV-human capital is a primary productive resource whose scale determines output and revenue potential (Barney, 1991; Becker, 1964). Ayyagari et al. (2011) documented this employment-revenue relationship across developing economies, finding that larger employment is robustly predictive of higher sales across size categories.

The moderate effect size ($V = 0.262$) is consistent with the expectation that the employment-revenue relationship is not deterministic: trading enterprises can generate relatively high revenues with small workforces (exploiting high-margin goods or large transaction volumes), while manufacturing micro-enterprises may employ proportionately more labour per unit of revenue due to low productivity or low-value product niches.

6.4 H04: Location Type and Type of Business - Spatial Embeddedness Confirmed

H04 is rejected ($\chi^2 = 47.299$, $df = 2$, $p < 0.001$, $V = 0.252$), revealing a moderate association between location type and enterprise sector. Manufacturing enterprises are disproportionately concentrated in semi-urban areas (76.3% of semi-urban enterprises are manufacturing), while rural enterprises show a relatively higher proportion in trading (41.3%). This spatial patterning is consistent with the embeddedness perspective of Granovetter (1985) and North's (1990) institutional framework: semi-urban locations in Gujarat offer superior infrastructure-industrial estate access, transport connectivity, utilities, and skilled labour pools-that facilitates manufacturing activity. Rural areas, by contrast, are better suited to trading enterprises serving local agricultural markets, as documented by the Ministry of MSME (2023) national data showing that rural MSMEs are disproportionately concentrated in trade and services rather than manufacturing.

Agarwal and Behera (2023) documented similar spatial concentration patterns for Indian service and manufacturing industries using Economic Census data, finding that geographic concentration of higher-productivity activities in peri-urban areas is a robust and persistent feature of India's industrial landscape. The present finding extends this evidence to Gujarat's MSME sector, confirming that location type is a meaningful categorical predictor of enterprise sector composition even at the intra-state level.

6.5 H05: Location Type and Financial Decision-Making - Institutional Embeddedness Confirmed

H05 is rejected ($\chi^2 = 40.283$, $df = 2$, $p < 0.001$, $V = 0.232$), confirming a moderate association between location type and financial decision-making patterns. Rural enterprise owners are substantially more likely to make financial decisions independently (64.3% self-directed), compared to semi-urban owners who exhibit greater recourse to shared decision-making and external consultant engagement. This finding validates the spatial embeddedness interpretation of Granovetter (1985) and the institutional constraints perspective of North (1990): rural entrepreneurs face lower institutional advisory density-fewer chartered

accountants, commercial bank branches, and financial consultancy services per enterprise-that produces a structural default toward owner-directed financial management.

Kochar et al. (2022) provide direct empirical support for this interpretation, demonstrating that geographic access to formal financial support institutions significantly shapes the financial decision-making behaviour of small enterprise owners in rural India. The moderate effect size ($V = 0.232$) suggests that location is a meaningful but not singular determinant of financial decision-making: owner human capital (Becker, 1964), enterprise scale, and sectoral norms also shape financial decision patterns, resulting in meaningful within-group variability at both location types.

7. Conclusion and Policy Implications

This study empirically examined five theoretically grounded structural associations among enterprise profile and owner-demographic variables across 715 MSMEs in Gujarat, India. All five null hypotheses are rejected at $p < 0.001$, with Cramer's V values indicating moderate to relatively strong effect sizes. The multi-theoretic framework-integrating RBV (Barney, 1991; Wernerfelt, 1984; Penrose, 1959), Firm Life Cycle Theory (Miller & Friesen, 1984; Dickinson, 2011), Human Capital Theory (Becker, 1964), and Spatial Embeddedness (Granovetter, 1985; North, 1990)-provides coherent theoretical grounding for each finding and enhances the interpretive depth of the analysis relative to purely empirical descriptive studies. The findings carry several direct policy implications. First, the very strong Type of Business–Number of Employees association ($V = 0.443$) implies that MSME employment promotion schemes must be sector-differentiated: manufacturing-focused interventions should target workforce development and skill upgrading, while trading and service enterprises require productivity enhancement and digital market access support. Second, the moderate association between enterprise age and annual turnover ($V = 0.285$) underscores the importance of survival-stage support programmes: enterprises in their first 3–5 years operate at significantly lower revenue levels and require targeted credit, mentoring, and market linkage support to navigate the early FLC growth stage. Third, the location-based associations (H04 and H05) highlight a persistent rural-semi-urban divide in enterprise sector composition and financial advisory access. Targeted rural MSME advisory outreach-leveraging fintech platforms, Common Service Centres, and mobile financial consultancy services-can partially offset the advisory deficit that produces self-directed financial management among rural entrepreneurs (Kochar et al., 2022; North, 1990).

The study has several limitations. The cross-sectional design precludes causal inference, and purposive-cum-convenience sampling constrains generalisation beyond the surveyed districts. The sample is heavily skewed toward male ownership (97.8%), limiting the power to detect gender-based structural differentials. Future research could extend this framework longitudinally to track structural evolution across FLC stages, employ logistic regression to model determinants of specific enterprise outcomes, and expand geographic coverage to enable comparative analysis across Gujarat's districts.

Funding

This paper is based on research carried out under the ICSSR Minor Research Project titled “FinTech Solutions for Economic Development: A Study on Financial Inclusion and MSME Growth in Rural and Semi-Urban Gujarat”, funded by the Indian Council of Social Science Research (ICSSR), New Delhi, India.

Declaration of Generative AI Use

During the preparation of this manuscript, the author used OpenAI ChatGPT and Claude Sonnet 4 (Anthropic; accessed via Claude.ai) solely to improve the language, grammar, and clarity of certain sections of the manuscript. These tools were not used for generating the research content, conducting data analysis, interpreting results, or drawing scientific conclusions. All intellectual contributions, including the study design, data collection, analysis, interpretation, and conclusions, are the sole responsibility of the author. The author carefully reviewed, revised, and approved the final manuscript and takes full responsibility for its content.

References

1. Agarwal, S., & Behera, S. R. (2023). Spatial concentration of Indian service industries in rural and urban areas: A micro-unit-level analysis. *Cogent Economics & Finance*, 11(2), Article 2270231. <https://doi.org/10.1080/23322039.2023.2270231>
2. Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2011). Small vs. young firms across the world: Contribution to employment, job creation, and growth. Policy Research Working Paper No. 5631. The World Bank. <https://doi.org/10.1596/1813-9450-5631>
3. Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
4. Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. National Bureau of Economic Research; distributed by Columbia University Press.
5. Beck, T., Demirgüç-Kunt, A., & Levine, R. (2005). SMEs, growth, and poverty: Cross-country evidence. *Journal of Economic Growth*, 10(3), 199–229. <https://doi.org/10.1007/s10887-005-3533-5>
6. Changeincontent. (2025, June 12). Women-owned MSMEs in India: Participation without power? Changeincontent. <https://www.changeincontent.com/women-owned-msmes-in-india/>
7. Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Erlbaum Associates.
8. Dickinson, V. (2011). Cash flow patterns as a proxy for firm life cycle. *The Accounting Review*, 86(6), 1969–1994. <https://doi.org/10.2308/accr-10130>
9. Granovetter, M. S. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91(3), 481–510. <https://doi.org/10.1086/228311>
10. Habib, A., & Hasan, M. M. (2019). Corporate life cycle research in accounting, finance and corporate governance: A survey, and directions for future research. *International Review of Financial Analysis*, 61, 188–201. <https://doi.org/10.1016/j.irfa.2018.12.004>
11. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Cengage Learning.
12. International Council for Research on International Economic Relations [ICRIER]. (2023). Annual survey of micro, small, and medium enterprises (MSMEs) in India: Leveraging e-commerce for the growth of MSMEs. ICRIER. https://icrier.org/pdf/E-commerce_MSME_Annual-Survey.pdf
13. International Finance Corporation [IFC]. (2022). Opportunities and constraints of women-owned very small enterprises in India. IFC. <https://www.ifc.org/en/insights-reports/2022/opportunities-and-constraints-of-wvses-in-india>
14. Kochar, A., Nagabhushana, C., Sarkar, R., Shah, R., & Singh, G. (2022). Financial access and women's role in household decisions: Empirical evidence from India's National Rural Livelihoods project.

- Journal of Development Economics, 155, Article 102821. <https://doi.org/10.1016/j.jdeveco.2021.102821>
15. Krishnan, A., & Scrase, T. J. (2021). Small enterprise development in India: Structural constraints and policy imperatives. *Journal of Small Business Management*, 59(4), 1123–1148. <https://doi.org/10.1080/00472778.2020.1773548>
16. Malhotra, N. K. (2020). *Marketing research: An applied orientation* (7th ed.). Pearson Education.
17. Miller, D., & Friesen, P. H. (1984). A longitudinal study of the corporate life cycle. *Management Science*, 30(10), 1161–1183. <https://doi.org/10.1287/mnsc.30.10.1161>
18. Ministry of MSME, Government of India. (2023). Annual report 2022–23. Ministry of Micro, Small and Medium Enterprises. <https://msme.gov.in>
19. North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.
20. Penrose, E. T. (1959). *The theory of the growth of the firm*. Basil Blackwell.
21. Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. Free Press.
22. Press Information Bureau [PIB], Government of India. (2024, July). Contribution of MSMEs to the GDP. PIB. <https://pib.gov.in/PressReleasePage.aspx?PRID=2035073>
23. Shaikh, R. F., & Mandviwala, F. R. (2023). A systematic literature review on role of micro, small and medium enterprises (MSMEs) in Indian economy. *International Journal of Scientific Research in Science and Technology*, 10(4), 589–596.
24. Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
25. Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>