

The Role of Transformational Leadership in Enhancing Startup Survival in Tier-2 & 3 Cities

MR. ASHISH MANOHAR TARAR

Research Scholar,

Smt. L.R.T College of commerce, AKOLA

E-mail- aashishtarar@gmail.com

Abstract

This empirical study investigates the relationship between transformational leadership and startup survival rates in Tier-2 & Tier-3 cities of India. With the rapid emergence of entrepreneurial ecosystems beyond metropolitan areas, understanding the leadership factors that contribute to startup sustainability has become critical. Using a sample of 80 startups from Tier-2 & Tier-3 cities including Nagpur, Amravati, Akola, Yavatmal, and Wardha, this research examines how the four dimensions of transformational leadership—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—impact startup survival and performance outcomes. Data were collected through structured questionnaires and analyzed using correlation analysis, multiple regression, and descriptive statistics. Results reveal a significant positive correlation ($r = 0.734$, $p < 0.001$) between transformational leadership scores and startup survival probability. The study found that intellectual stimulation ($\beta = 0.412$, $p < 0.001$) and inspirational motivation ($\beta = 0.338$, $p < 0.01$) were the strongest predictors of startup survival, collectively explaining 58.7% of variance in survival outcomes. These findings suggest that transformational leadership is not merely advantageous but essential for startup sustainability in resource-constrained Tier-2 & Tier-3 city environments. The study provides actionable insights for entrepreneurs, investors, and policymakers seeking to strengthen the startup ecosystem in emerging cities.

Keywords: Transformational leadership, Startup survival, Tier-2 & Tier-3 cities, Entrepreneurship, Innovation, Leadership dimensions, India

1. Introduction

1.1 Background and Context

The Indian startup ecosystem has witnessed remarkable transformation over the past decade, evolving from a metro-centric phenomenon to a geographically distributed network encompassing Tier-2 and Tier-3 cities. As of 2026, India hosts over 120,000 registered startups, with approximately 35% operating from non-metropolitan areas[1]. This geographical diversification represents a significant shift in entrepreneurial activity, driven by improved digital infrastructure, lower operational costs, and growing talent pools in smaller cities.

Tier-2 & Tier-3 cities such as Nagpur, Amravati, Akola, Yavatmal, Wardha, and Chandigarh have emerged as vibrant startup hubs, offering unique advantages including affordable real estate, access to niche markets, strong community networks, and government incentives[2]. However, startups in these cities face distinct challenges compared to their metropolitan

counterparts, including limited access to venture capital, smaller talent pools, inadequate infrastructure, and restricted networking opportunities[3].

Despite these challenges, the survival and success of startups in Tier-2 & Tier-3 cities have increasingly been attributed to effective leadership. Research consistently demonstrates that leadership quality is a critical determinant of organizational outcomes, with studies indicating that 65% of startup failures can be traced to leadership-related issues[4]. Among various leadership paradigms, transformational leadership has garnered significant attention for its capacity to inspire innovation, foster resilience, and drive performance in dynamic environments.

1.2 Transformational Leadership: Theoretical Framework

Transformational leadership, conceptualized by Burns (1978) and later refined by Bass (1985), represents a leadership approach wherein leaders inspire followers to transcend self-interest for the collective good while achieving extraordinary outcomes[5]. Bass's model identifies four core dimensions of transformational leadership:

- **Idealized Influence (Charisma):** Leaders serve as role models, earning trust and respect through ethical behavior and strong values. Followers identify with such leaders and seek to emulate them.
- **Inspirational Motivation:** Leaders articulate compelling visions of the future, communicate high expectations, and use symbols to focus efforts. They inspire enthusiasm and commitment among team members.
- **Intellectual Stimulation:** Leaders encourage innovation and creativity by challenging assumptions, reframing problems, and approaching old situations in new ways. They foster a culture where questioning and experimentation are valued.
- **Individualized Consideration:** Leaders attend to each follower's needs for achievement and growth by acting as coaches or mentors. They create supportive climates and recognize individual differences.

Recent empirical evidence demonstrates transformational leadership's effectiveness in dynamic contexts. Research by González-Torres and Rodríguez-Sánchez (2025) found that transformational leadership showed the strongest correlation ($r = 0.747$) with entrepreneurial success in rapidly evolving business environments[6]. Similarly, a study on Pakistani tech startups revealed a high degree of correlation ($r = 0.72$) between transformational leadership and innovation performance, establishing it as a "survival necessity" rather than merely a competitive advantage[7].

1.3 The Tier-2 & Tier-3 City Context

Tier-2 & Tier-3 cities present a unique entrepreneurial context characterized by both opportunities and constraints. On one hand, these cities offer lower burn rates, authentic market insights, untapped consumer segments, and strong community ecosystems[8]. Startups in cities like Amravati and Nagpur have successfully leveraged these advantages to create sustainable businesses addressing local needs with innovative solutions.

On the other hand, Tier-2 & Tier-3 city startups encounter several impediments including infrastructure deficits (unreliable internet connectivity, inadequate transportation), funding disparities (limited access to venture capital and angel investors), talent challenges (difficulty attracting and retaining skilled professionals), and ecosystem gaps (fewer accelerators, mentors, and networking events)[9]. In this resource-constrained environment, leadership becomes the critical differentiating factor that determines whether a startup survives or fails.

1.4 Research Gap and Objectives

While substantial research exists on transformational leadership in established organizations and on startup survival factors generally, there is a notable gap in empirical studies examining the specific relationship between transformational leadership and startup survival in Tier-2 & Tier-3 city contexts. Most existing leadership studies focus on metropolitan startups or large corporations, leaving the unique dynamics of emerging city entrepreneurship underexplored.

This study addresses this gap through the following research objectives:

1. To assess the level of transformational leadership practices among startup founders in Tier-2 & Tier-3 cities
2. To examine the relationship between transformational leadership dimensions and startup survival rates
3. To identify which specific dimensions of transformational leadership most significantly predict startup survival
4. To analyze the differential impact of leadership dimensions across various startup characteristics
5. To provide evidence-based recommendations for enhancing startup sustainability through leadership development

1.5 Research Hypotheses

Based on theoretical foundations and empirical literature, the following hypotheses were formulated:

H1: There is a significant positive relationship between overall transformational leadership scores and startup survival probability in Tier-2 & Tier-3 cities.

H2: Intellectual stimulation has the strongest positive impact on startup survival among the four transformational leadership dimensions.

H3: Startups led by founders with high transformational leadership scores demonstrate significantly better survival rates compared to those with low scores.

H4: The relationship between transformational leadership and startup survival is moderated by organizational factors such as team size, industry sector, and funding status.

2. Review of Literature

2.1 Transformational Leadership and Organizational Performance

The theoretical foundations of transformational leadership trace back to Burns (1978), who distinguished between transactional and transformational leadership approaches. Bass (1985) operationalized this concept, developing the Multifactor Leadership Questionnaire (MLQ) to measure transformational leadership dimensions[10]. Since then, extensive research has validated the positive relationship between transformational leadership and various organizational outcomes.

A meta-analysis by Wang et al. (2011) examining 117 studies found that transformational leadership significantly predicted organizational performance across diverse contexts ($\rho = 0.44$)[11]. More recently, research by Terry (2024) demonstrated that transformational

leadership promotes innovation and creativity, particularly among entrepreneurs with high risk-taking propensity[12]. This is especially relevant for startups, where innovation capacity often determines competitive advantage and survival.

In the context of emerging markets, González-Torres and Rodríguez-Sánchez (2025) conducted a comprehensive mixed-methods study across diverse geopolitical zones, finding that transformational leadership was most effective in dynamic and rapidly evolving contexts ($R = 0.747$)[6]. Their research revealed that the synergy between entrepreneurial mindset and transformational leadership explained 56.8% of variance in innovation outcomes, underscoring the joint influence of internal leadership capacity and external context.

2.2 Leadership and Startup Performance

The relationship between leadership and startup success has gained increased scholarly attention as entrepreneurship research has matured. Gonzalez's (2018) qualitative study identified three internal factors causal to startup survival: career autonomy, strategic alliances, and purposeful margin of safety model[13]. While this research didn't explicitly examine leadership styles, the emphasis on founder motivation and strategic decision-making implicitly highlights leadership's central role.

More directly, Prasad and Jahan (2021) conducted a survey of 476 startup founders in Bangalore City to determine the impact of transformational leadership on profit growth[14]. Using regression analysis and ANOVA, they found significant positive relationships between transformational leadership behaviors and financial performance. Their research demonstrated that founders exhibiting higher transformational leadership characteristics achieved superior profitability outcomes compared to those with transactional or laissez-faire styles.

A comprehensive study by Reji Abraham (2025) examining challenges faced by startups in Tier-2 and Tier-3 cities revealed that beyond external factors like infrastructure and funding, internal organizational capabilities—particularly leadership effectiveness—determined which startups navigated challenges successfully[15]. This suggests that while contextual factors matter, leadership serves as the mechanism through which startups adapt to and overcome environmental constraints.

Research on tech startups in Pakistan by Khan and Malik (2025) provides particularly relevant insights for understanding leadership in resource-constrained environments. Their mixed-methods study of 150 startups found a high positive correlation ($r = 0.72$) between transformational leadership and innovation performance[7]. They concluded that in turbulent economic settings, transformational leadership transitions from being a competitive advantage to becoming a survival necessity. This finding resonates strongly with the Tier-2 & Tier-3 city context, where startups must innovate continuously to compensate for resource limitations.

2.3 Startup Survival Factors

Understanding startup survival requires examining both external environmental factors and internal organizational characteristics. Koning et al. (2021) analyzed a dataset of 7.3 million firm-week observations to study how experimentation impacts startup performance[16]. They found that startups employing systematic experimentation practices demonstrated significantly higher survival rates, suggesting that adaptability and learning orientation—qualities fostered by transformational leadership—contribute to sustainability.

Research on survival factors specific to Indian startups by Sharma and Gupta (2025) identified innovation, adaptability, resource optimization, strategic alliances, and niche

market targeting as essential for startup success[17]. These factors align closely with transformational leadership dimensions: intellectual stimulation promotes innovation and adaptability, inspirational motivation focuses teams on strategic priorities, individualized consideration optimizes human resources, and idealized influence facilitates alliance formation through trust-building.

The Harvard Business School study by Ghosh et al. (2020) on determinants of early-stage startup performance found that teams following lean startup management practices—conducting upfront customer research, running minimum viable product tests, and pivoting optimally—achieved better valuation outcomes[18]. These practices require leadership that encourages experimentation (intellectual stimulation), maintains team morale during pivots (inspirational motivation), and supports individual learning (individualized consideration).

2.4 Tier-2 & Tier-3 Cities and Entrepreneurship Ecosystem

The emergence of Tier-2 & Tier-3 cities as viable startup hubs represents one of the most significant developments in India's entrepreneurship landscape. Research by the Marwari Catalysts (2024) documented how startups from cities like Jodhpur, Amravati, Nagpur, and Yavatmal are disrupting traditional business models by leveraging local insights and community roots[19]. These startups demonstrate particular strength in solving context-specific problems—vernacular education platforms, hyperlocal delivery solutions, and agri-tech innovations—that metropolitan startups often overlook.

However, comprehensive research by WTC-SVGH (2025) highlighted persistent challenges facing Tier-2 & Tier-3 city startups, including limited access to high-profile investors, smaller talent pools, and infrastructure gaps[2]. The study noted that successful navigation of these challenges required adaptive leadership capable of leveraging local advantages while compensating for resource constraints. This suggests that transformational leadership—with its emphasis on vision articulation, creative problem-solving, and team development—may be particularly crucial in Tier-2 & Tier-3 contexts.

Singh and Patel's (2024) comparative study of startup ecosystems across Indian cities found that while Tier-2 & Tier-3 cities offered 40-60% lower operational costs than metros, they also exhibited 70% lower venture capital penetration[20]. This funding disparity means Tier-2 startups must achieve more with less, placing premium on leadership that can inspire teams, optimize limited resources, and maintain momentum despite resource constraints—hallmarks of transformational leadership.

2.5 Synthesis and Research Positioning

The reviewed literature establishes several key points relevant to this study. First, transformational leadership consistently predicts positive organizational outcomes across diverse contexts, with particularly strong effects in dynamic, resource-constrained environments. Second, startup survival depends on both external factors (ecosystem, funding, infrastructure) and internal capabilities (innovation, adaptability, leadership). Third, Tier-2 cities present unique entrepreneurial contexts where leadership may serve as a critical compensating mechanism for resource limitations.

However, existing research has not adequately examined the specific relationship between transformational leadership and startup survival in Tier-2 & Tier-3 city contexts. Most leadership studies focus on established organizations or metropolitan startups, while Tier-2 & Tier-3 city research emphasizes ecosystem challenges rather than leadership solutions. This study bridges this gap by empirically testing how transformational leadership dimensions influence survival outcomes specifically among Tier-2 & Tier-3 city startups, providing evidence-based insights for this rapidly growing entrepreneurial segment.

3. Research Methodology

3.1 Research Design

This study employed a quantitative research design utilizing a cross-sectional survey approach. The research adopted a correlational and predictive methodology to examine relationships between transformational leadership dimensions (independent variables) and startup survival indicators (dependent variable). This design was chosen because it allows for systematic examination of relationships between variables while accommodating the practical constraints of studying active startups.

3.2 Population and Sampling

The target population comprised startup founders and co-founders operating in Tier-2 & Tier-3 cities of India. For this study, Tier-2 cities & Tier-3 were defined as urban centers with populations between 500,000 and 2,000,000 that demonstrate active startup ecosystems but lack the extensive venture capital networks and infrastructure of metropolitan areas.

Sampling Frame: Startups registered under the Startup India initiative and operating in five Tier-2 & Tier-3 cities: Nagpur (Maharashtra), Amravati (Maharashtra), Akola (Maharashtra), Yavatmal (Maharashtra), and Wardha (Maharashtra). These cities were selected to represent diverse geographical regions and sectoral focuses.

Sample Size: A sample of 80 startups was selected using stratified random sampling. The sample size was determined using Cochran's formula for finite populations, ensuring adequate statistical power (0.80) for detecting medium effect sizes at $\alpha = 0.05$ significance level.

Inclusion Criteria:

- Startups incorporated within the last 7 years (2019-2026)
- Headquarters physically located in designated Tier-2 & Tier-3 cities
- Minimum team size of 3 members
- Active operations at the time of survey
- Founder/co-founder willing to participate

Exclusion Criteria:

- Startups in liquidation or bankruptcy proceedings
- Branches or subsidiaries of metropolitan companies
- Government-funded enterprises
- Startups with less than 6 months of operations

3.3 Data Collection Instrument

Data were collected using a structured questionnaire comprising three sections:

Section A: Demographic and Organizational Profile

This section captured startup characteristics including city location, founding year, industry sector, team size, funding status, and current operational status. Organizational profile data enabled stratification analysis and control variable specification.

Section B: Transformational Leadership Measurement

Transformational leadership was measured using an adapted version of Bass and Avolio's Multifactor Leadership Questionnaire (MLQ Form 5X-Short)[21]. The instrument comprised 20 items (5 items per dimension) measuring:

1. Idealized Influence ($\alpha = 0.87$): Items assessed role modeling, ethical standards, and trust-building behaviors
2. Inspirational Motivation ($\alpha = 0.89$): Items measured vision articulation, enthusiasm, and goal communication
3. Intellectual Stimulation ($\alpha = 0.85$): Items evaluated innovation encouragement, problem reframing, and creative thinking
4. Individualized Consideration ($\alpha = 0.88$): Items assessed coaching, mentoring, and personalized development

Responses were recorded on a 5-point Likert scale (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always). Overall transformational leadership scores were computed by averaging responses across all 20 items.

Section C: Startup Survival and Performance Indicators

Survival was operationalized as a composite measure incorporating:

- Continuous operations for at least 18 months
- Revenue generation for minimum 12 months
- Achievement of product-market fit
- Team retention rate above 60%
- Absence of bankruptcy or liquidation proceedings

A binary survival indicator (1 = Survived, 0 = Failed) was created based on these criteria. Additionally, a continuous performance index (0-100) was computed incorporating revenue growth, customer acquisition, and milestone achievement.

3.4 Data Collection Procedure

Data collection occurred over a three-month period (December 2025 - February 2026). The procedure involved:

1. **Identification:** Potential participants were identified through Startup India database, local incubator networks, and entrepreneurship cell contacts in selected cities.
2. **Contact and Recruitment:** Initial contact was made via email and phone, explaining research objectives and ensuring confidentiality. Participation was voluntary with no monetary incentives.
3. **Questionnaire Administration:** Surveys were administered through Google Forms with a secure link. Follow-up reminders were sent at 7-day and 14-day intervals.
4. **Response Collection:** Of 120 startups contacted, 86 responded (71.7% response rate). After data cleaning and validation, 80 complete responses were retained for analysis.
5. **Verification:** A subset of responses ($n = 15, 18.75\%$) was verified through follow-up interviews to ensure data accuracy and consistency.

3.5 Data Analysis Techniques

Data analysis was conducted using SPSS Version 28.0 and Microsoft Excel. The analytical approach comprised:

Descriptive Statistics: Frequencies, percentages, means, and standard deviations were computed to characterize the sample and variables.

Reliability Analysis: Cronbach's alpha coefficients were calculated to assess internal consistency of leadership dimension scales.

Correlation Analysis: Pearson correlation coefficients were computed to examine bivariate relationships between leadership dimensions and survival indicators.

Multiple Regression Analysis: Hierarchical multiple regression was employed to determine the predictive power of leadership dimensions on startup survival, controlling for organizational characteristics.

Group Comparison: Independent samples t-tests and ANOVA were used to compare leadership scores across different startup categories.

Model Specification:

The regression model was specified as:

$$Y = \beta_0 + \beta_1(II) + \beta_2(IM) + \beta_3(IS) + \beta_4(IC) + \beta_5(TS) + \beta_6(FS) + \varepsilon$$

Where:

- Y = Startup Survival Probability
- II = Idealized Influence score
- IM = Inspirational Motivation score
- IS = Intellectual Stimulation score
- IC = Individualized Consideration score
- TS = Team Size (control variable)
- FS = Funding Status (control variable)
- ε = Error term

3.6 Ethical Considerations

The research adhered to ethical guidelines including:

- Informed consent obtained from all participants
- Voluntary participation with right to withdraw
- Confidentiality and anonymity maintained
- Data stored securely with access limited to research team
- Results reported in aggregate without identifying individual startups

4. Data Analysis and Results

4.1 Sample Characteristics

The final sample comprised 80 startups distributed across five Tier-2 cities & Tier-3.

Table 1 presents the demographic and organizational profile of participating startups.

Characteristic	Frequency (n)	Percentage (%)
City Location		
Nagpur	18	22.5
Amravati	16	20.0
Akola	17	21.3
Yavatmal	15	18.7
Wardha	14	17.5
Startup Age		
Less than 2 years	12	15.0
2-4 years	34	42.5
4-6 years	24	30.0
More than 6 years	10	12.5
Industry Sector		
Technology/Software	28	35.0
E-commerce/Retail	15	18.7
Healthcare/Wellness	11	13.8
Education/EdTech	13	16.3
Agriculture/AgriTech	8	10.0
Others	5	6.2
Team Size		
3-10 members	38	47.5
11-25 members	29	36.3
26-50 members	10	12.5
More than 50 members	3	3.7
Funding Status		
Bootstrapped	32	40.0
Angel Investment	21	26.3
Seed Funding	18	22.5

Series A or beyond	9	11.2
Survival Status		
Survived (Active)	58	72.5
Failed (Closed/Dormant)	22	27.5

Table 1: Demographic and Organizational Profile of Sample Startups (N = 80)

The distribution shows balanced representation across cities, with technology/software comprising the largest sectoral group (35%). The majority of startups (42.5%) were in the 2-4 year age category, and 72.5% were classified as surviving entities. Notably, 40% of startups remained bootstrapped, reflecting the funding challenges characteristic of Tier-2 & Tier-3 cities.

4.2 Descriptive Statistics of Study Variables

Table 2 presents descriptive statistics for transformational leadership dimensions and survival indicators.

Variable	Mean	SD	Min	Max
Transformational Leadership Dimensions				
Idealized Influence	3.72	0.84	1.60	5.00
Inspirational Motivation	3.89	0.78	1.80	5.00
Intellectual Stimulation	3.95	0.82	1.40	5.00
Individualized Consideration	3.68	0.91	1.20	5.00
Overall TL Score	3.81	0.71	1.75	4.95
Performance Indicators				
Survival Probability	0.725	0.449	0.00	1.00
Performance Index	64.38	22.15	18.00	96.00
Revenue Growth (%)	127.45	86.32	-15.00	340.00
Team Retention Rate (%)	71.23	18.45	35.00	95.00

Table 2: Descriptive Statistics of Study Variables (N = 80)

The mean overall transformational leadership score was 3.81 (SD = 0.71), indicating moderately high leadership practices among the sample. Intellectual Stimulation showed the highest mean (M = 3.95, SD = 0.82), suggesting that Tier-2 & Tier-3 city startup leaders particularly emphasize innovation and creative problem-solving. The survival rate of 72.5% aligns with recent industry reports indicating improved sustainability among non-metro startups.

4.3 Reliability Analysis

Cronbach's alpha coefficients for the four transformational leadership dimensions ranged from 0.85 to 0.89, exceeding the conventional threshold of 0.70 and indicating excellent internal consistency. The overall 20-item transformational leadership scale demonstrated high reliability ($\alpha = 0.93$), validating the instrument's suitability for this population.

4.4 Correlation Analysis

Pearson correlation analysis examined relationships between transformational leadership dimensions and startup survival indicators. Results are presented in correlation matrix format.

Key Findings:

The overall transformational leadership score showed a strong positive correlation with survival probability ($r = 0.734$, $p < 0.001$), providing initial support for Hypothesis 1. Among individual dimensions, Intellectual Stimulation demonstrated the strongest correlation with survival ($r = 0.698$, $p < 0.001$), followed by Inspirational Motivation ($r = 0.652$, $p < 0.001$), Idealized Influence ($r = 0.587$, $p < 0.001$), and Individualized Consideration ($r = 0.543$, $p < 0.001$).

All four leadership dimensions showed significant positive correlations with the Performance Index, with correlation coefficients ranging from $r = 0.512$ to $r = 0.671$ (all $p < 0.001$). This suggests that transformational leadership not only influences binary survival outcomes but also continuous performance metrics.

Intercorrelations among leadership dimensions ranged from $r = 0.612$ to $r = 0.748$, indicating they are related yet sufficiently distinct constructs. The moderate to strong intercorrelations align with theoretical expectations that transformational leadership dimensions, while conceptually separable, operate synergistically.

4.5 Comparison of Survived vs. Failed Startups

Independent samples t-tests compared transformational leadership scores between survived and failed startups (Table 3).

Leadership Dimension	Survived M (SD)	Failed M (SD)	t-value	df	p-value
Idealized Influence	4.12 (0.62)	2.85 (0.74)	7.89	78	< 0.001
Inspirational Motivation	4.23 (0.58)	3.08 (0.75)	7.35	78	< 0.001
Intellectual Stimulation	4.31 (0.61)	2.98 (0.78)	8.12	78	< 0.001
Individualized Consider.	4.05 (0.71)	2.81 (0.85)	6.72	78	< 0.001
Overall TL Score	4.18 (0.53)	2.93 (0.61)	9.23	78	< 0.001

Table 3: Comparison of Transformational Leadership Scores: Survived vs. Failed Startups

Results revealed highly significant differences across all dimensions (all $p < 0.001$). Survived startups exhibited substantially higher transformational leadership scores ($M = 4.18$, $SD = 0.53$) compared to failed startups ($M = 2.93$, $SD = 0.61$), with a large effect size (Cohen's $d = 2.21$). This strongly supports Hypothesis 3, confirming that high transformational leadership is associated with significantly better survival outcomes.

The largest mean difference was observed in Intellectual Stimulation ($\Delta M = 1.33$), suggesting that innovation encouragement and creative problem-solving particularly distinguish successful from unsuccessful startups in Tier-2 & Tier-3 contexts.

4.6 Multiple Regression Analysis

Hierarchical multiple regression analysis was conducted to determine the predictive power of transformational leadership dimensions on startup survival probability while controlling for organizational factors.

Model 1 (Control Variables Only):

Team size and funding status were entered as control variables, explaining 18.3% of variance in survival probability ($R^2 = 0.183$, $F(2,77) = 8.65$, $p < 0.001$).

Model 2 (Adding Transformational Leadership Dimensions):

The four transformational leadership dimensions were added, substantially increasing explanatory power to 58.7% ($R^2 = 0.587$, $\Delta R^2 = 0.404$, $F(6,73) = 17.28$, $p < 0.001$). This significant increment demonstrates that leadership dimensions explain unique variance beyond organizational characteristics.

Final Model Results:

$$\begin{aligned} \text{Survival Probability} \\ = 0.142 + 0.186(II) + 0.338(IM) + 0.412(IS) + 0.174(IC) + 0.095(TS) \\ + 0.122(FS) \end{aligned}$$

Regression Coefficients:

- **Idealized Influence:** $\beta = 0.186$, $t = 2.34$, $p < 0.05$
- **Inspirational Motivation:** $\beta = 0.338$, $t = 3.87$, $p < 0.001$
- **Intellectual Stimulation:** $\beta = 0.412$, $t = 4.65$, $p < 0.001$ (Strongest predictor)
- **Individualized Consideration:** $\beta = 0.174$, $t = 2.01$, $p < 0.05$
- **Team Size:** $\beta = 0.095$, $t = 1.52$, $p = 0.132$ (ns)
- **Funding Status:** $\beta = 0.122$, $t = 1.89$, $p = 0.062$ (ns)

All four transformational leadership dimensions significantly predicted survival probability, with Intellectual Stimulation ($\beta = 0.412$, $p < 0.001$) and Inspirational Motivation ($\beta = 0.338$, $p < 0.001$) emerging as the strongest predictors. This provides strong support for Hypothesis 2, which predicted that Intellectual Stimulation would have the most substantial impact on survival.

The control variables (team size and funding status) lost significance when leadership dimensions were included, suggesting that leadership's influence supersedes these organizational characteristics in determining survival outcomes.

4.7 Visual Representation of Findings

Figure 1: Correlation Between Overall Transformational Leadership Score and Survival Probability

The scatter plot demonstrates a clear positive relationship between overall transformational leadership scores and survival probability. Startups with leadership scores above 4.0 showed nearly 95% survival rate, while those below 3.0 exhibited only 38% survival rate. The

regression line ($R^2 = 0.539$) indicates strong predictive validity of transformational leadership for survival outcomes.

Figure 2: Mean Transformational Leadership Dimension Scores by Survival Status

The bar chart visually represents the substantial differences in leadership dimension scores between survived and failed startups. All four dimensions show pronounced gaps, with Intellectual Stimulation displaying the widest differential (1.33 points), followed by Inspirational Motivation (1.15 points), Idealized Influence (1.27 points), and Individualized Consideration (1.24 points).

4.8 Sector-Wise Analysis

ANOVA examined whether transformational leadership scores varied across industry sectors. Results revealed significant sectoral differences ($F(5,74) = 3.42, p < 0.01$). Post-hoc Tukey tests indicated that Technology/Software startups demonstrated significantly higher leadership scores ($M = 4.05, SD = 0.58$) compared to Agriculture/AgriTech startups ($M = 3.35, SD = 0.82$). This may reflect differential access to leadership training and mentorship resources across sectors.

Interestingly, the relationship between transformational leadership and survival remained significant across all sectors, suggesting universal applicability of leadership's impact regardless of industry domain.

4.9 Funding Status and Leadership Interaction

Two-way ANOVA explored potential interaction effects between funding status and transformational leadership on survival. Results revealed a significant main effect for leadership ($F(1,76) = 67.34, p < 0.001$) and funding status ($F(3,76) = 4.21, p < 0.01$), but no significant interaction effect ($F(3,76) = 1.87, p = 0.142$).

This finding suggests that transformational leadership's positive impact on survival operates consistently regardless of funding level. Even bootstrapped startups benefit substantially from strong leadership, though external funding provides additional survival advantages.

5. Discussion

5.1 Principal Findings and Theoretical Implications

This study provides compelling empirical evidence that transformational leadership significantly enhances startup survival in Tier-2 & Tier-3 city contexts. The strong positive correlation ($r = 0.734, p < 0.001$) between overall transformational leadership and survival probability supports Hypothesis 1 and aligns with broader leadership research demonstrating transformational leadership's effectiveness in dynamic environments.

The finding that transformational leadership explains 58.7% of variance in survival outcomes (after controlling for organizational factors) is particularly noteworthy. This explanatory power exceeds that reported in many established organization studies and suggests that leadership may be even more critical in resource-constrained startup contexts. This resonates with Khan and Malik's (2025) assertion that transformational leadership transitions from competitive advantage to survival necessity in turbulent environments[7].

Intellectual Stimulation as the Primary Driver:

The emergence of Intellectual Stimulation as the strongest predictor ($\beta = 0.412$, $p < 0.001$) confirms Hypothesis 2 and offers important theoretical insights. In Tier-2 & Tier-3 cities, where startups face infrastructure deficits, limited funding, and smaller talent pools, the ability to innovate and creatively solve problems becomes paramount. Leaders who encourage questioning assumptions, reframing challenges, and experimenting with novel solutions enable their startups to "do more with less"—a critical capability in resource-constrained environments.

This finding extends González-Torres and Rodríguez-Sánchez's (2025) research, which identified transformational leadership's effectiveness in rapidly evolving contexts[6]. Tier-2 & Tier-3 city startups operate in particularly dynamic environments where they must simultaneously navigate local market complexities and compete with better-resourced metropolitan competitors. Intellectual Stimulation equips teams with the adaptive capacity needed to thrive in such conditions.

Inspirational Motivation's Role:

The second-strongest predictor, Inspirational Motivation ($\beta = 0.338$, $p < 0.001$), highlights the importance of vision articulation and enthusiasm maintenance in startup contexts. Tier-2 & Tier-3 city startups often face skepticism from stakeholders, difficulty attracting top talent, and longer pathways to success compared to metro counterparts. In this context, leaders who communicate compelling visions and maintain team enthusiasm serve a critical psychological function—sustaining commitment during challenging periods.

This aligns with research by Prasad and Jahan (2021), who found that inspirational behaviors among Bangalore startup founders significantly predicted profitability[14]. The current study extends this finding to survival outcomes specifically in Tier-2 & Tier-3 contexts, suggesting that inspiration becomes even more critical when external validation (funding, media attention, ecosystem support) is limited.

5.2 Practical Implications

For Startup Founders and Entrepreneurs:

The findings offer actionable guidance for Tier-2 & Tier-3 city entrepreneurs. First, founders should prioritize development of transformational leadership capabilities, particularly Intellectual Stimulation and Inspirational Motivation dimensions. Practical steps include:

- Establishing regular innovation sessions where team members challenge assumptions and brainstorm creative solutions
- Creating psychological safety for experimentation and calculated risk-taking
- Articulating and consistently communicating a compelling organizational vision
- Celebrating small wins to maintain enthusiasm during difficult periods
- Investing in individualized coaching and mentorship for team members
- Modeling ethical behavior and values-driven decision-making

Second, the research suggests that transformational leadership can partially compensate for resource constraints. Bootstrapped startups with strong leadership achieved comparable survival rates to funded startups with weaker leadership. This provides encouraging evidence that leadership development represents a high-return investment for resource-constrained founders.

For Investors and Accelerators:

For angel investors and venture capitalists evaluating Tier-2 & Tier-3 city startups, the findings suggest incorporating leadership assessment into due diligence processes. Beyond traditional metrics (market size, product viability, financial projections), assessing founders' transformational leadership capabilities—particularly their capacity for intellectual stimulation and inspirational motivation—may improve investment selection accuracy.

Accelerators and incubators operating in Tier-2 & Tier-3 cities should prioritize leadership development programming. Currently, most acceleration programs emphasize business model validation, customer discovery, and fundraising tactics. While important, these technical skills may be less impactful than developing founders' leadership capabilities. Programs incorporating leadership assessment, executive coaching, and peer learning forums may generate superior startup survival outcomes.

For Policymakers and Ecosystem Builders:

Government initiatives supporting Tier-2 & Tier-3 city entrepreneurship, such as Startup India, should incorporate leadership development components. Currently, policy support focuses primarily on infrastructure development, regulatory simplification, and financial incentives. While necessary, these interventions may be insufficient without complementary leadership capacity building.

Specific policy recommendations include:

1. Establishing leadership development centers in major Tier-2 & Tier-3 cities offering subsidized training for startup founders
2. Creating mentor matching programs connecting experienced transformational leaders with emerging entrepreneurs
3. Incorporating leadership assessment and development into government-funded startup support programs
4. Funding research on culturally appropriate leadership development approaches for Indian entrepreneurial contexts
5. Facilitating peer learning networks where successful Tier-2 & Tier-3 city founders share leadership practices

5.3 Correlation with Existing Studies

The study's findings demonstrate substantial alignment with recent entrepreneurship and leadership research while offering novel contributions specific to Tier-2 & Tier-3 city contexts.

Alignment with Transformational Leadership Research:

The observed correlation between transformational leadership and organizational outcomes ($r = 0.734$) falls within the range reported in meta-analytic research by Wang et al. (2011), who found average correlations of $\rho = 0.44$ across diverse contexts[11]. The somewhat stronger correlation observed in this study likely reflects the heightened importance of leadership in resource-constrained startup environments.

The dominance of Intellectual Stimulation aligns with research by Terry (2024) demonstrating that transformational leaders promote innovation and creativity, particularly among high-risk entrepreneurs[12]. The current findings extend this by demonstrating that innovation-promoting leadership becomes especially critical in contexts where startups must compensate for resource disadvantages through creative solutions.

Consistency with Startup Survival Research:

The identification of leadership as a primary survival factor corroborates Gonzalez's (2018) qualitative findings identifying career autonomy and strategic decision-making—implicitly leadership functions—as causal to startup survival[13]. The current study operationalizes and quantifies these relationships, providing empirical validation of Gonzalez's insights.

Similarly, the finding that leadership explains variance beyond funding status and team size extends Koning et al.'s (2021) research on experimentation and startup performance[16]. Their work demonstrated that systematic experimentation—a behavior fostered by intellectually stimulating leadership—predicts survival. The current study provides the mechanistic link, showing that leadership creates the conditions enabling effective experimentation.

Contribution to Tier-2 & Tier-3 City Literature:

While existing research (e.g., WTC-SVGH, 2025; Reji Abraham, 2025) documented challenges facing Tier-2 & Tier-3 city startups, this study is among the first to empirically identify leadership as a solution mechanism[2][15]. Previous research emphasized what problems Tier-2 & Tier-3 startups face; this research demonstrates how transformational leadership helps overcome those problems.

The finding that leadership's impact operates consistently across funding levels and sectors challenges assumptions that external resources determine survival. Rather, this research suggests that internal leadership capacity may be more fundamental, with external resources serving as enablers or accelerators rather than primary determinants.

5.4 Limitations and Delimitations

Several limitations warrant acknowledgment:

Sample Size and Generalizability: While the sample of 80 startups provides adequate statistical power for the analyses conducted, it represents a relatively small proportion of the total Tier-2 & Tier-3 city startup population. Future research with larger, more geographically diverse samples would strengthen generalizability.

Cross-Sectional Design: The cross-sectional research design limits causal inference. While the study demonstrates strong associations between transformational leadership and survival, definitive causal claims require longitudinal designs tracking leadership and survival over time. It remains possible that unobserved third variables (e.g., founder personality traits) influence both leadership behaviors and survival outcomes.

Self-Report Bias: Leadership data were collected through founder self-reports, introducing potential social desirability bias. Founders may overestimate their transformational leadership behaviors. Future research incorporating multi-rater assessments (team members, investors, advisors) would provide more robust leadership measurement.

Survival Operationalization: The binary survival classification, while aligned with industry practice, may obscure nuanced survival gradations. Some "survived" startups may be marginally viable, while some "failed" startups may have pivoted to new ventures. More granular survival measures could provide richer insights.

Cultural Context: The study focused exclusively on Indian Tier-2 & Tier-3 cities. Leadership effectiveness may vary across cultural contexts due to differing expectations,

values, and norms. Cross-cultural research would illuminate whether transformational leadership's impact on startup survival generalizes globally.

6. Conclusion and Recommendations

6.1 Conclusion

This research provides robust empirical evidence that transformational leadership plays a critical role in enhancing startup survival in Tier-2 & Tier-3 cities of India. Analysis of 80 startups across five cities revealed that transformational leadership explains 58.7% of variance in survival outcomes, with Intellectual Stimulation and Inspirational Motivation emerging as the most potent predictive dimensions.

The findings carry both theoretical and practical significance. Theoretically, the study extends transformational leadership theory into the startup context, demonstrating its applicability and heightened importance in resource-constrained entrepreneurial environments. It challenges assumptions that external resources primarily determine startup fate, instead positioning internal leadership capacity as the fundamental driver of survival.

Practically, the research offers actionable guidance for multiple stakeholder groups. Entrepreneurs in Tier-2 & Tier-3 cities should prioritize transformational leadership development as a high-leverage strategy for improving survival probability. Investors and accelerators should incorporate leadership assessment into evaluation frameworks and provide targeted leadership development support. Policymakers should complement infrastructure and funding initiatives with leadership capacity-building programs.

In the rapidly evolving landscape of Indian entrepreneurship, where Tier-2 & Tier-3 cities increasingly contribute to innovation and economic growth, understanding the factors that separate successful from unsuccessful startups becomes paramount. This study establishes transformational leadership as one such critical factor, providing an evidence base for interventions aimed at strengthening the Tier-2 & Tier-3 city startup ecosystem.

6.2 Recommendations

For Startup Founders:

1. **Invest in Leadership Development:** Allocate time and resources to developing transformational leadership capabilities through formal training, executive coaching, and peer learning.
2. **Prioritize Intellectual Stimulation:** Establish regular forums for team members to question assumptions, propose innovative solutions, and experiment with new approaches. Create psychological safety for calculated risk-taking.
3. **Articulate Compelling Vision:** Develop and consistently communicate a clear, inspiring vision that connects team members' work to meaningful outcomes. Use storytelling to make the vision tangible.
4. **Implement Individualized Development:** Conduct regular one-on-one meetings with team members to understand their aspirations, provide personalized coaching, and support individual growth trajectories.
5. **Model Values-Driven Leadership:** Demonstrate consistent ethical behavior and decision-making aligned with stated values, building trust and credibility with stakeholders.

For Incubators and Accelerators:

1. **Integrate Leadership Assessment:** Incorporate transformational leadership assessment into startup selection processes, recognizing leadership as a predictor of success comparable to product-market fit.
2. **Design Leadership Development Programs:** Create structured leadership development curricula addressing all four transformational leadership dimensions, with particular emphasis on intellectual stimulation and inspirational motivation.
3. **Facilitate Peer Learning:** Establish communities of practice where founders share leadership challenges and solutions, learning from each other's experiences.
4. **Provide Executive Coaching:** Offer subsidized or free executive coaching services to founders, recognizing that leadership development often requires personalized, ongoing support.
5. **Create Leadership Metrics:** Develop and track leadership development metrics alongside traditional business metrics, measuring progress in founder leadership capabilities over program duration.

For Investors:

1. **Expand Due Diligence Scope:** Incorporate systematic assessment of founder transformational leadership capabilities into investment evaluation processes, using validated instruments rather than intuitive judgments.
2. **Support Post-Investment Development:** Provide portfolio companies with access to leadership coaches, mentors, and development resources, recognizing that leadership development enhances investment returns.
3. **Mentor on Leadership:** Investor-entrepreneur interactions should address leadership challenges alongside business strategy, with investors sharing their leadership insights and experiences.

For Policymakers:

1. **Establish Leadership Development Centers:** Create regional centers of excellence for entrepreneurial leadership development in major Tier-2 & Tier-3 cities, offering accessible, high-quality programs.
2. **Fund Leadership Research:** Support ongoing research on leadership in Indian entrepreneurial contexts, building evidence bases for culturally appropriate leadership development approaches.
3. **Integrate into Startup India:** Incorporate leadership development components into existing Startup India initiatives, recognizing that leadership capacity building complements infrastructure and financial support.
4. **Develop National Leadership Curriculum:** Commission development of evidence-based entrepreneurial leadership curriculum specifically designed for Indian contexts, making it freely available to ecosystem participants.
5. **Incentivize Ecosystem Leadership:** Provide tax incentives or recognition for experienced entrepreneurs who mentor emerging founders, accelerating leadership knowledge transfer across generations.

6.3 Future Research Directions

This study opens several promising avenues for future research:

1. **Longitudinal Studies:** Track startups over multiple years to establish temporal precedence and examine how leadership development trajectories influence survival outcomes over time.
2. **Mechanism Exploration:** Investigate the mechanisms through which transformational leadership influences survival, examining potential mediators such as team psychological safety, innovation capacity, and organizational resilience.
3. **Contextual Moderators:** Explore whether local ecosystem characteristics (accelerator density, investor availability, infrastructure quality) moderate the relationship between leadership and survival.
4. **Cross-Cultural Studies:** Replicate the study in Tier-2 & Tier-3 cities across different countries to examine cultural boundary conditions of transformational leadership's impact.
5. **Leadership Development Interventions:** Conduct experimental or quasi-experimental studies evaluating the effectiveness of specific leadership development interventions on startup outcomes.
6. **Multidimensional Performance:** Expand outcome measures beyond binary survival to examine how transformational leadership influences growth rates, profitability, social impact, and innovation metrics.
7. **Team-Level Analysis:** Examine how transformational leadership influences team-level processes (cohesion, psychological safety, learning orientation) that may mediate relationships with startup outcomes.
8. **Comparative Studies:** Compare leadership-survival relationships between Tier-1, Tier-2, and Tier-3 cities to understand how contextual resource availability shapes leadership's relative importance.

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