

An Empirical Investigation of Startup Challenges: A Modeling Approach using Exploratory Factor Analysis

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Abstract— *Startups are important drivers of innovation, employment generation, and economic development; however, they encounter numerous challenges that affect their growth and sustainability. This study aims to investigate the major challenges faced by Department for Promotion of Industry and Internal Trade (DPIIT)-recognized startups in Haryana using a modeling approach based on Exploratory Factor Analysis (EFA). A cross-sectional research design was adopted, and primary data were collected from 55 startup founders and Chief Executive Officers (CEOs) through a structured questionnaire using purposive sampling. Data were analyzed using IBM SPSS Statistics 26. The Kaiser–Meyer–Olkin (KMO) value (0.766), significant Bartlett's Test of Sphericity ($p < 0.001$), and Cronbach's alpha (0.965) confirmed the adequacy and reliability of the measurement scale. EFA identified five key dimensions of startup challenges—financial, regulatory, human resource, managerial, and market-related—which explained 87.094% of the total variance. The findings provide valuable insights for policymakers, incubators, investors, and entrepreneurs to formulate strategies that enhance startup sustainability and strengthen the entrepreneurial ecosystem.*



Keywords— *Startup Challenges, Exploratory Factor Analysis (EFA), Entrepreneurship, Startup Ecosystem.*

I. INTRODUCTION

Startups have emerged as important catalysts for economic growth, innovation, and job creation by introducing innovative products, services, and business models that enhance productivity and competitiveness. They contribute significantly to technological advancement, industrial development, and wealth creation, making them integral to modern economies (Panjavarman & Balachandran, 2019; Yadav & Gulati, 2019). India's entrepreneurial landscape has undergone a remarkable transformation with the introduction of the Startup India initiative in 2016, which aims to promote innovation through policy support, funding opportunities, incubation facilities, and an easier business environment. These initiatives have strengthened the startup ecosystem and positioned India among the leading startup nations globally (Panjavarman & Balachandran, 2019). However, establishing a startup is not merely about developing an innovative idea; it also involves overcoming

numerous uncertainties during its establishment and growth stages.

Despite the rapid expansion of the startup ecosystem, entrepreneurs continue to face several challenges, including inadequate access to finance, talent acquisition, market competition, operational inefficiencies, regulatory complexities, and technological adaptation. These challenges significantly influence startup survival, growth, and long-term sustainability, particularly during the early stages of business development (Girotra & Kaushik, 2018; Chauhan & Bansal, 2023). Among the Indian states, Haryana has emerged as an important startup destination because of its strategic location, industrial infrastructure, and growing technology ecosystem. Cities such as Gurugram, Faridabad, and Hisar have witnessed considerable entrepreneurial activity supported by government policies, incubation centres, and innovation-driven initiatives. Nevertheless, startups in Haryana

continue to encounter various financial, managerial, operational, and market-related challenges that may hinder their sustainable growth (Yadav & Gulati, 2019; Chauhan & Bansal, 2023).

Although previous studies have examined different aspects of entrepreneurship and startup ecosystems, most have focused on specific sectors or individual challenges. Limited empirical evidence exists regarding the underlying dimensions of startup challenges, particularly in the context of Haryana. Therefore, identifying and modeling these challenges using Exploratory Factor Analysis (EFA) can provide a comprehensive understanding of their latent structure and support the development of evidence-based strategies for strengthening the startup ecosystem.

Accordingly, the present study empirically investigates the challenges faced by startups and develops a multidimensional model using Exploratory Factor Analysis (EFA). The findings are expected to contribute to entrepreneurship literature and assist policymakers, incubators, investors, and entrepreneurs in designing effective interventions for sustainable startup development.

II. REVIEW OF LITERATURE

The entrepreneurial journey begins with an innovative idea and the aspiration to build a successful business; however, transforming that idea into a sustainable startup is a complex process characterized by financial, managerial, institutional, market, and operational challenges. Although entrepreneurial motivation initiates venture creation, long-term startup success depends on entrepreneurs' ability to overcome multidimensional barriers. Azeem and Khanna (2026) found that university-incubated startups in India continue to face operational and financial challenges despite incubation support, emphasizing the need for strategic planning, innovation capability, funding, market understanding, networking, government support, and effective team management. Similarly, Dias et al. (2026) reported that necessity-driven and opportunity-driven entrepreneurs experience different challenges due to varying contextual environments and resource constraints.

Financial constraints remain among the most significant barriers to startup sustainability, including limited access to finance, investor attraction, working capital management, and financial literacy (Beknazarov et al., 2020; Dahiya et al., 2020; Kalyanasundaram et al., 2021; Goswami et al., 2023; Osei et al., 2026). Market-related challenges such as customer acquisition, commercialization, limited market access, pricing competition, and ineffective marketing strategies also hinder startup growth (Kulkarni et al., 2020; Lam & Mok, 2022; Nunes et al., 2022; Goswami et al., 2023; Parwez, 2026; Liu & Bassols i Gardella, 2026). In

addition, inadequate strategic planning, weak leadership, poor managerial capabilities, limited entrepreneurial experience, shortage of skilled human resources, and investor conflicts adversely affect startup performance (SojasiQeidari et al., 2020; Beknazarov et al., 2020; Kalyanasundaram et al., 2021; Shava & Chinyamurindi, 2022; Azeem & Khanna, 2026). Institutional and regulatory barriers, including weak government support, policy complexities, and inadequate entrepreneurial assistance, further restrict startup growth (Dahiya et al., 2020; Lam & Mok, 2022; Nunes et al., 2022; Parwez, 2026; Liu & Bassols i Gardella, 2026). Likewise, infrastructure limitations, weak networking opportunities, insufficient industry collaboration, and knowledge spillovers constrain innovation, particularly in emerging economies (Barboza & Capocchi, 2020; Kulkarni et al., 2020; Beknazarov et al., 2020; Azeem & Khanna, 2026). Social and contextual factors, including domestic responsibilities, communication barriers, and differences between necessity-driven and opportunity-driven entrepreneurs, also shape entrepreneurial outcomes (Shava & Chinyamurindi, 2022; Dias et al., 2026; Liu & Bassols i Gardella, 2026). Studies by Parwez (2026) and Liu and Bassols i Gardella (2026) further highlight that funding shortages, commercialization barriers, market readiness, and regulatory requirements continue to impede startup sustainability, while Mohan and Srivastava (2025) show that both opportunity-driven and necessity-driven motivations influence women entrepreneurs. Furthermore, Lizarelli et al. (2021) confirmed that organizations adopting Lean Startup practices still encounter customer validation issues, implementation barriers, and organizational resistance. Overall, the literature demonstrates that startup success depends not only on entrepreneurial motivation and innovation but also on entrepreneurs' ability to effectively manage financial, managerial, operational, institutional, market, regulatory, networking, infrastructure, and human resource challenges. Malhotra (2022) found that both internal and external factors influence startup performance, with external factors having a stronger impact across different stages of startup development. More recently, Rubi et al. (2025) highlighted the role of Artificial Intelligence (AI) in improving decision-making, innovation, operational efficiency, and sustainability while emphasizing the importance of human capital, governance, and a supportive entrepreneurial ecosystem. Nevertheless, most existing studies have focused on specific sectors, countries, or categories of entrepreneurs, leaving limited empirical evidence on the comprehensive challenges faced by Indian DPIIT-recognized startups during their growth phases. This gap provides a strong rationale for the present study.

Research Gap

Despite the growing literature on startup challenges, most studies focus on specific sectors, countries, or entrepreneur groups rather than DPIIT-recognized startups within a single Indian state. Previous research has examined financial, managerial, market, institutional, and contextual barriers across diverse settings, including Italy, India, Iran, South Africa, and Europe (Barboza & Capocchi, 2020; Dahiya et al., 2020; SojasiQeidari et al., 2020; Kalyanasundaram et al., 2021; Lizarelli et al., 2021; Shava & Chinyamurindi, 2022; Dias et al., 2026; Liu & Bassols i Gardella, 2026; Parwez, 2026). Similarly, studies on Indian startups have primarily emphasized survival, scaling, and policy issues at the national level (Azeem & Khanna, 2026; Goswami et al., 2023). However, limited empirical evidence exists on the multidimensional challenges faced by DPIIT-recognized startups in Haryana. Unlike previous studies that are often sector- or gender-specific, this study includes founders and CEOs of both technology and non-technology startups, as well as both male and female entrepreneurs. Using exploratory factor analysis and reliability assessment of primary data collected from DPIIT-recognized startups in Haryana, this study provides context-specific insights into the key operational challenges encountered during their growth phases.

Research Objective

To investigate the challenges affecting the growth of startups in Haryana.

Research Methodology

Description of sample and data collection

This study employed a cross-sectional research design to collect data from CEOs and founders of 54 DPIIT-recognized startups in Haryana, using purposive sampling. Data were collected via both online and offline questionnaires using a 5-point Likert scale, where 1 = Strongly Disagree and 5 = Strongly Agree.

Statistical tools

IBM SPSS Statistics (Version 26) was used to analyze the collected data. The software was employed to perform descriptive and inferential statistical analyses to achieve the study's objectives.

III. RESULT AND DATA ANALYSIS

Demographic Description of the Entrepreneur

Table 1 presents the demographic characteristics of the 55 respondents included in the pilot study. Among them, 54.5% were male and 45.5% were female. The majority of respondents (41.8%) were in the 25–35-year age group. In terms of education, 47.3% were graduates, followed by 27.3% postgraduates, indicating that most respondents were well educated. Regarding family size, 63.6% belonged to nuclear families, while 36.4% belonged to joint families. In terms of annual family income, 54.5% reported an income between ₹2.5 lakh and ₹5 lakh, followed by 27.3% with an income of up to ₹2.5 lakh. Overall, the respondents were predominantly young, educated entrepreneurs from nuclear families with moderate income levels.

Table -1 Demographic Description of the Entrepreneur

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	30	54.5
	Female	25	45.5
	Total	55	100
Age	Below 25 Years	10	18.2
	25–35 Years	23	41.8
	35–45 Years	15	27.3
	45–55 Years	4	7.3
	Above 55 Years	3	5.5
	Total	55	100
Education	Secondary	1	1.8
	Higher Secondary	3	5.5
	Graduate	26	47.3
	Post Graduate	15	27.3
	Professional	5	9.1
	Diploma	5	9.1

	Total	55	100
Family Size	Nuclear	35	63.6
	Joint	20	36.4
	Total	55	100
Family Income	Up to ₹2.5 Lakh	15	27.3
	₹2.5 Lakh–₹5 Lakh	30	54.5
	₹5 Lakh–₹10 Lakh	8	14.5
	Above ₹10 Lakh	2	3.6
	Total	55	100

Distribution of the sample by startup profile

Table 2 presents the startup characteristics of the 55 respondents. More than half of the respondents (56.4%) started their ventures with a completely new idea, while 43.6% built on an existing one. The majority (63.6%) registered their startups as Private Limited Companies, and

45.5% operated under the B2B2C business model. Most startups (54.5%) offered goods, operated in the technology sector (54.5%), and had been in operation for 5–8 years (54.5%). Furthermore, 70.9% targeted both rural and urban markets, and 63.6% employed 1–10 employees, indicating that most respondents represented small-scale startups.

Table -2 Startup profile

Characteristic	Category	Frequency (n)	Percentage (%)
Startup Idea	Completely new idea	31	56.4
	Improvisation of an existing idea	24	43.6
	Total	55	100.0
Type of Ownership	Partnership	5	9.1
	Private Limited Company	35	63.6
	LLP	15	27.3
	Total	55	100.0
Type of Business	B2B	15	27.3
	B2B2C	25	45.5
	B2C	15	27.3
	Total	55	100.0
Product Offer	Goods	30	54.5
	Service	10	18.2
	Both Goods and Services	15	27.3
	Total	55	100.0
Area of Operation	Technology	30	54.5
	Non-Technology	25	45.5
	Total	55	100.0
Target Market	Urban	15	27.3
	Pan India	1	1.8
	Rural & Urban India	39	70.9
	Total	55	100.0
Years of Operation	2–5 Years	20	36.4
	5–8 Years	30	54.5
	8–10 Years	5	9.1
	Total	55	100.0

Number of Employees	1–10	35	63.6
	11–20	15	27.3
	21–30	5	9.1
	Total	55	100.0

Factor Analysis

Factor analysis with varimax rotation and principal component analysis was applied. The eigenvalue for factor extraction was taken as greater than 1. Using factor analysis,

the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was .766, and Bartlett's Test of Sphericity was also significant. The total variance explained by the factors was also found to be 87.094%. So, factor analysis was applied to extract factors.

Table -3 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.766
Bartlett's Test of Sphericity	Approx. Chi-Square	2201.227
	df	351
	Sig.	0.000

Table 3 shows the KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) and Bartlett's Test of Sphericity. The KMO value is a measure of sampling adequacy, i.e., whether the sample is adequate for applying factor analysis. The KMO value is .766, indicating that the sample is

adequate for factor analysis. Bartlett's Test of Sphericity shows correlation among statements. The value of Bartlett's Test of Sphericity is .000, which is less than .05, indicating that there is better correlation among statements.

Table-4 Descriptive Statistics

Descriptive Statistics			
Statements	Mean	Std. Deviation	Analysis N
FC1	4.13	1.123	55
FC2	4.33	0.982	55
FC3	4.35	1.040	55
FC4	4.27	1.008	55
FC5	4.36	0.969	55
FC6	4.25	1.190	55
MC1	4.20	1.145	55
MC2	4.20	0.989	55
MC3	4.29	1.031	55
MC4	4.11	1.165	55
MC5	4.22	1.117	55
RC1	4.25	0.966	55
RC2	4.35	0.927	55
RC3	4.35	1.004	55
RC4	4.33	1.037	55
RC5	4.27	1.044	55
HRC1	3.93	1.184	55
HRC2	4.07	1.230	55

HRC3	4.09	1.143	55
HRC4	4.33	1.055	55
HRC5	4.04	1.138	55
HRC6	4.29	1.031	55
MG1	3.80	1.161	55
MG2	3.78	1.197	55
MG3	3.73	1.269	55
MG4	3.65	1.236	55
MG5	3.85	1.113	55

Table 4 presents the descriptive statistics of the factors representing the challenges faced by entrepreneurs (N = 55). The mean scores range from 3.65 to 4.36, indicating that respondents generally agreed that these challenges influenced their startup establishment and growth. Among the factors, Financial Challenges (FC) recorded the highest mean score (4.13–4.36), suggesting that financial constraints were the most significant challenge. This was followed by Regulatory Challenges (RC) with mean values ranging from 4.25 to 4.35, indicating that legal and

regulatory issues were also major concerns. Human Resource Challenges (HRC) showed mean scores ranging from 3.93 to 4.33, indicating moderate to high agreement on workforce-related difficulties. The last construct (MC) recorded comparatively lower mean scores (3.65–3.85), indicating that these challenges were perceived as less severe than the others. The standard deviation values ranged from 0.93 to 1.27, suggesting a moderate variation in respondents' opinions

Table -5 Communalities Initial vs Extraction

Communalities		
	Initial	Extraction
FC1	1.000	0.648
FC2	1.000	0.886
FC3	1.000	0.881
FC4	1.000	0.875
FC5	1.000	0.844
FC6	1.000	0.815
MC1	1.000	0.877
MC2	1.000	0.788
MC3	1.000	0.886
MC4	1.000	0.906
MC5	1.000	0.898
RC1	1.000	0.894
RC2	1.000	0.930
RC3	1.000	0.915
RC4	1.000	0.899
RC5	1.000	0.898
HRC1	1.000	0.877
HRC2	1.000	0.819
HRC3	1.000	0.880
HRC4	1.000	0.852
HRC5	1.000	0.886
HRC6	1.000	0.846

MC1	1.000	0.889
MC2	1.000	0.905
MC3	1.000	0.879
MC4	1.000	0.901
MC5	1.000	0.942
Extraction Method: Principal Component analysis		

Table 5 presents the extraction value for each statement. For a statement to be included in the factor, the extraction value should be greater than 0.5. By this table, it is clear that every

statement has an extraction value greater than 0.5. So, all the statements can be included in factors.

Table -6 Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.965	27

Table 6 shows the reliability of the questionnaire. Cronbach's Alpha is 0.965, which indicates excellent internal consistency among the 27 items. The items are

highly correlated and reliably measure the same underlying construct.

Table -7 Rotated Component Matrix after Varimax Rotation

Rotated Component Matrix					
	Component				
	1	2	3	4	5
MC5	0.920				
MC2	0.878				
MC1	0.856				
MC3	0.843				
MC4	0.790				
HRC4		0.881			
HRC5		0.867			
HRC6		0.824			
HRC1		0.815			
HRC3		0.813			
HRC2		0.801			
MC5			0.884		
MC4			0.869		
MC1			0.856		
MC3			0.846		
MC2			0.793		
RC2				0.867	
RC3				0.808	
RC4				0.805	
RC1				0.798	
RC5				0.751	

FC3					0.779
FC2					0.775
FC4					0.772
FC6					0.751
FC5					0.733
FC1					0.531
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 7 iterations.					

Table 7 shows the Rotated Component Matrix, which presents the factor loadings of each variable for each factor. All the variables are loaded in a group after rotation, and that group is called a factor. This table explains how many factors are required and which statements should be included in each factor.

The rotated component matrix shows that the items clearly group into five distinct factors. MC items (MC1–MC5) load highly on the first component, HRC items (HRC1–HRC6) on the second, RC items (RC1–RC5) on the fourth, and FC items (FC1–FC6) on the fifth. All loadings are strong, confirming that the items cluster well under their respective constructs. The rotation converged in seven iterations, validating the presence of these underlying factors.

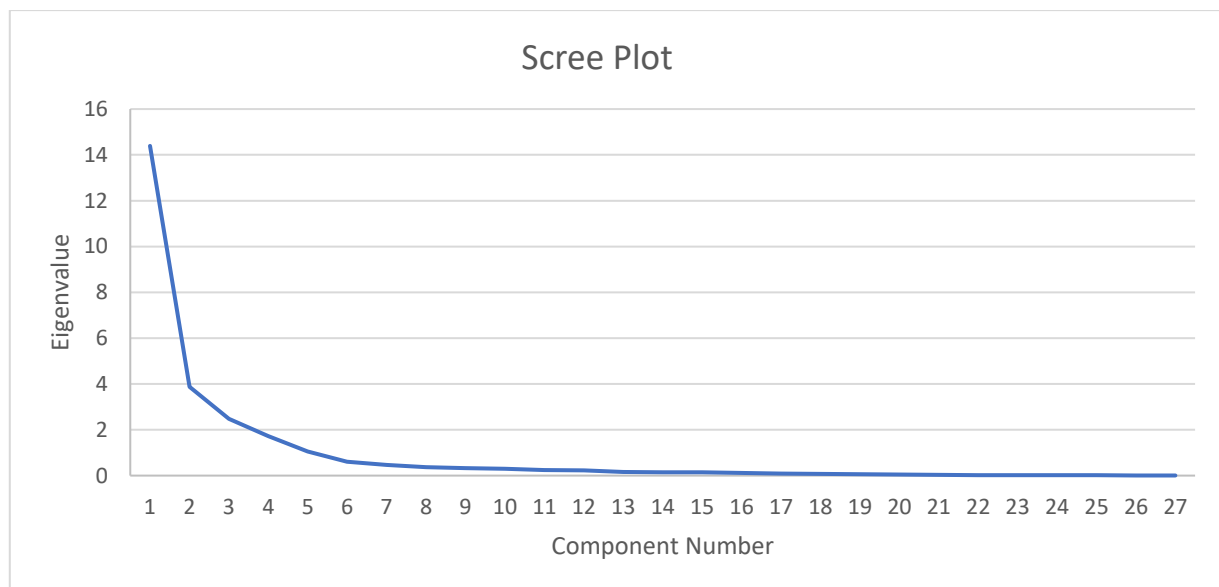


Fig.1 Scree Plot

The Scree Plot shows the eigenvalues for each component in a factor analysis. The first component has a very high eigenvalue of about 14.5, indicating that it explains a large portion of the total variance in the data. The eigenvalue drops sharply for the second component and then decreases rapidly for subsequent components. After the second component, the eigenvalues level off near zero, indicating that additional components contribute very little additional information. This suggests that most of the important variation in the data is captured by the first one or two components, and the rest can be ignored.

Variance Explained by the Extracted Factors

Table 7 presents the results of the Principal Component Analysis (PCA) used to examine the factor structure of the 27 measurement items. Based on the eigenvalue-greater-than-1 criterion, five components were extracted. Together, these five components explained 87.094% of the total variance, indicating that the extracted factors adequately represent the study's underlying constructs.

The first component accounted for the largest proportion of variance (53.303%), followed by the second (14.373%), third (9.154%), fourth (6.361%), and fifth (3.903%). After Varimax rotation, the variance was more evenly distributed across the five components, explaining 19.173%, 19.000%,

17.255%, 15.934%, and 15.731%, respectively. This indicates a well-defined factor structure and demonstrates that the extracted components effectively represent the observed variables. Overall, the cumulative variance

explained of 87.094% exceeds the recommended threshold of 60%, confirming that the measurement scale has strong construct validity and is appropriate for further statistical analysis

Table-7 Total Variance Explained

Component	Initial Eigenvalues		Extraction Sums of Squared Loadings				Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.392	53.303	53.303	14.392	53.303	53.303	5.177	19.173	19.173
2	3.881	14.373	67.676	3.881	14.373	67.676	5.130	19.000	38.173
3	2.471	9.154	76.830	2.471	9.154	76.830	4.659	17.255	55.428
4	1.717	6.361	83.191	1.717	6.361	83.191	4.302	15.934	71.363
5	1.054	3.903	87.094	1.054	3.903	87.094	4.247	15.731	87.094
6	0.600	2.224	89.318						
7	0.466	1.725	91.043						
8	0.362	1.340	92.383						
9	0.320	1.185	93.569						
10	0.298	1.105	94.674						
11	0.246	0.913	95.586						
12	0.227	0.840	96.426						
13	0.160	0.592	97.018						
14	0.146	0.540	97.559						
15	0.140	0.519	98.078						
16	0.111	0.411	98.489						
17	0.095	0.353	98.842						
18	0.073	0.271	99.113						
19	0.058	0.217	99.330						
20	0.050	0.184	99.514						
21	0.038	0.141	99.655						
22	0.024	0.088	99.743						
23	0.023	0.086	99.829						
24	0.018	0.068	99.897						
25	0.014	0.052	99.949						
26	0.009	0.033	99.983						
27	0.005	0.017	100.000						
Extraction Method: Principal Component analysis									

IV. CONCLUSION

This study examined the operational challenges faced by DPIIT-recognized startups in Haryana. The findings indicate that entrepreneurs encounter multidimensional challenges during the establishment and growth of their

startups. Among these, financial challenges emerged as the most significant, followed by regulatory, human resource, managerial, and market-related challenges. The factor analysis confirmed a five-factor structure with satisfactory sampling adequacy (KMO = 0.766), significant Bartlett's

Test ($p < 0.001$), high cumulative variance explained (87.094%), and excellent reliability (Cronbach's Alpha = 0.965). These findings demonstrate that the measurement scale is both valid and reliable for assessing startup challenges. Overall, the study concludes that addressing financial, regulatory, managerial, market, and human resource issues is essential for improving the sustainability and growth of startups in Haryana.

Practical Implications

The findings provide useful implications for policymakers, startup support organizations, incubators, and entrepreneurs. Government agencies should strengthen financial assistance, simplify regulatory procedures, and improve access to startup support schemes. Incubators and accelerators should focus on mentoring entrepreneurs in financial management, regulatory compliance, strategic planning, and human resource development. Entrepreneurs should also enhance their managerial capabilities and adopt effective business strategies to overcome operational challenges and improve startup performance. The study further contributes to the entrepreneurship literature by providing empirical evidence on the major challenges faced by DPIIT-recognized startups in Haryana.

V. FUTURE RESEARCH

Future studies may extend the present research by including a larger sample of startups from different states of India to improve the generalizability of the findings. Researchers may also compare challenges across technology and non-technology startups, manufacturing and service sectors, or different stages of the startup life cycle. Longitudinal studies can examine how startup challenges evolve over time. In addition, future research may employ Structural Equation Modeling (SEM) to investigate the relationships between startup challenges, entrepreneurial performance, and business sustainability. Further studies may also explore the moderating or mediating role of government support, innovation capability, digital adoption, and entrepreneurial experience in influencing startup success.

REFERENCES

- [1] Azeem, M., & Khanna, A. (2026). Surviving the startup journey: Analyzing the factors fostering the survival of university-incubated startups. *Journal of Research in Marketing and Entrepreneurship*. Advance online publication. <https://doi.org/10.1108/JRME-04-2025-0065>
- [2] Barboza, G., & Capocchi, A. (2020). Innovative startups in Italy: Managerial challenges of knowledge spillover effects on employment generation. *Journal of Knowledge Management*, 24(10), 2573–2596. <https://doi.org/10.1108/JKM-11-2019-0625>
- [3] Beknazarov, B., Tashenov, R., Kalyanova, S., & Aitzhanova, A. (2020). Development of entrepreneurship and forms of self-employment in the innovative sectors of the economy. *Entrepreneurship and Sustainability Issues*, 8(2), 209–228. [https://doi.org/10.9770/jesi.2020.8.2\(13\)](https://doi.org/10.9770/jesi.2020.8.2(13))
- [4] Dahiya, S., Singh, R., & Sinha, P. (2021). Organic food women entrepreneurs: TISM approach for challenges. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(1), 114–141. <https://doi.org/10.1108/JEC-04-2020-0068>
- [5] Dias, C., Pereira, C., Ferreira, J., & Dabić, M. (2026). A framework for immigrant entrepreneur trajectories: Integrating rural–urban contexts and necessity–opportunity entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*
- [6] Goswami, N., Murti, A., & Dwivedi, R. (2023). Why do Indian startups fail? A narrative analysis of key business stakeholders. *Indian Growth and Development Review*, 16(2), 141–157. <https://doi.org/10.1108/IGDR-11-2022-0136>
- [7] Kalyanasundaram, G., Ramachandrala, S., & Mungila Hillemane, B. S. (2021). The life expectancy of tech start-ups in India: What attributes impact tech start-ups' failures? *International Journal of Entrepreneurial Behavior & Research*, 27(8), 2050–2078. <https://doi.org/10.1108/IJEER-01-2020-0044>
- [8] Kulkarni, S., et al. (2020). Challenges of rural start-ups in Karnataka, India. *Management and Sustainable Development*, 77(1), 65–71.
- [9] Malhotra, K. (2022). Factors Influencing Startups in an Emerging Economy: A Literature Review. *IUP Journal of Entrepreneurship Development*, 19(1).
- [10] Lam, P. T. I., & Mok, K. S. H. (2023). A study of growth barriers and mitigation measures for built environment innovative startups: The case of Hong Kong. *International Journal of Innovation Science*, 15(1), 94–112. <https://doi.org/10.1108/IJIS-02-2021-0033>
- [11] Liu, S. O., & Bassols i Gardella, N. (2026). Entrepreneurs in circular economy: On motivations, drivers, and barriers. *Circular Economy and Sustainability*, 6(2), 123–145. <https://doi.org/10.1007/s43615-026-00766-w>
- [12] Lizarelli, F. L., Torres, A. F., Antony, J., Ribeiro, R. V. C., Salentijn, W., Fernandes, M. M., & Campos, A. T. (2021). Critical success factors and challenges for Lean Startup: A systematic literature review. *The TQM Journal*, 33(7), 123–145. <https://doi.org/10.1108/TQM-06-2021-0177>
- [13] Mohan, R., & Srivastava, C. (2025). Motivational factors governing the growth of women entrepreneurs in Uttar Pradesh. *Global Business Review*, 26(3), 348–366. <https://doi.org/10.1177/09708464251334894>
- [14] Nunes, A. K. da S., Morioka, S. N., & Bolis, I. (2022). Challenges of business models for sustainability in startups. *RAUSP Management Journal*, 57(4), 382–400. <https://doi.org/10.1108/RAUSP-10-2021-0216>
- [15] Osei, K., Mensah, J., & Boateng, E. (2026). Financial strategies to tackle critical factors that drive startup businesses' failure. Evidence from developing and lower-

- middle income countries. *Journal of Entrepreneurship and Public Policy*, 1-16.
- [16] Parwez, S. (2026). From margins to markets: an innovator perspective on developmental and social marketing challenges for grassroots innovations. *Journal of Entrepreneurship and Public Policy*, 1-19.
- [17] Shava, H., & Chinyamurindi, W. T. (2022). Barriers of growth within an informal sector business: Narratives of women subsistence entrepreneurs in South Africa. *African Journal of Economic and Management Studies*, 13(4), 641–657. <https://doi.org/10.1108/AJEMS-08-2021-0354>
- [18] Sojasi Qeidari, H., Salehi, M., Shayan, H., Hosseini Kahnooj, S. R., & Sadeghlou, T. (2020). Analysis of the factors affecting probable failure of local entrepreneurs: Forecasting approach of greenhouses in rural areas of Jiroft, Iran. *International Journal of Law and Management*, 62(1), 93–115. <https://doi.org/10.1108/IJLMA-03-2018-0044>
- [19] Rubi, R., Malhotra, K., Maan, A., & Yadav, S. Navigating AI Entrepreneurship: A Review of Artificial Intelligence in Startup Ecosystems. *International Journal of English Literature and Social Sciences*, 10(6), 569-573.
- [20] Chauhan, A., & Bansal, D. (2023). A study on status of agricultural startups in Haryana state of India. *The Online Journal of Distance Education and e-Learning*, 11(2), 1122–1131.
- [21] Girotra, R., & Kaushik, T. (2018). Recruiting challenges of e-commerce start-ups in India. *Journal of Organisation & Human Behaviour*, 7(2–3), 47–54.
- [22] Panjavarnam, A., & Balachandran, V. (2019). Growth and the challenges of start-up entrepreneurs in India: An analysis. *Journal of Management and Science*, 9(1), 16–30. <https://doi.org/10.26524/jms.2019.3>
- [23] Yadav, J., & Gulati, N. (2019). SWOT analysis of micro entrepreneurship and start-ups in Haryana. *International Journal of Business and Economics Research*, 8(6), 399–405. <https://doi.org/10.11648/j.ijber.20190806.20>