

Impact of Funding Accessibility and Technological Adoption on the Growth and Operational Performance of IT Start-Ups

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ABSTRACT

The fast growth of the Indian IT start-up ecosystem has increased the urgency to learn essential factors of sustainable growth and operational excellence. This paper will analyse how Funding Accessibility affects the growth of IT start-ups and how Technological Adoption affects the operational performance. The study uses primary data from 410 IT start-ups to test the hypotheses, employing descriptive statistics, One-Way ANOVA, correlation analysis, and regression analysis.

The results indicate that the availability of funding largely depends on the turnover types and positively influences the start-up development. Start-ups with higher turnover rates have an easier time accessing sources of funding, such as venture capital, bank loans, and investor networks. Also, there is a high positive effect on operational performance in relation to technological adoption, especially cloud systems, automation tools, analytics platforms, cybersecurity solutions, and AI-based systems.

The regression model accounts a significant amount of variation in the performance of operational aspects validating the fact that technology is a significant efficiency driver. The research adds to the literature by making financial ecosystem access and digital capability part of one empirical approach. The practical implications are the necessity of better funding schemes of early-stage firms and faster strategies of digital transformation.

Keywords- Investment Accessibility, IT Start-ups, Technological Adoption, Operational Performance, Start-up Growth.

I. INTRODUCTION

The IT start-up community in India has become one of the most vibrant innovation environments in the world. As digital infrastructure has grown, more investors have become involved and the policy-level support systems have been established, the sector has undergone significant change. Nevertheless, even in the growth narrative, most start-ups experience structural issues which make them difficult to scale and sustain. Access to financial resources and level of technological integration is among the most eminent factors that affect start-up success.

The accessibility of funds is fundamental in allowing start-ups to grow their activities, invest in product development, increase their marketing capacities, and increase market reach. Start-up companies often have a problem with seed capital, venture capital, government funds, and networking investors. Inequality in accessing capital tends to give rise to growth inequality among companies in the same line of operation.

At the same time, the use of technology has turned out to be the center of operational competitiveness. Cloud computing, automation, analytics, artificial intelligence, cybersecurity, and digital integration make processes more efficient and decision-making more effective. The operational models that are driven by technology make them cost effective, agile, and scalable- qualities vital in ensuring that they survive in the competitive IT markets.

This paper researches on two essential dimensions:

1. The role of Funding Accessibility on IT start-ups Growth.
2. The Impact of Technological Adoption to Operational Performance.

The research, which was based on the empirical analysis of the answers of 410 IT start-ups, provides information on the joint influence of financial ecosystem integration and digital maturity on start-up performance.

II. REVIEW OF LITERATURE

Access to funds has always been cited as a major factor in the success of any entrepreneur. Empirical research indicates that the capital constraints have considerable negative impact on innovation capacity and ability to expand the market. Venture capital access enhances the standards of strategic networking and governance. Nevertheless, the small firms in many cases have information asymmetry and collateral constraints that minimize the availability of bank loans.

Financial schemes being funded by the government and policy support have tried to close the initial funding gaps. However, proceduralities and eligibility criteria tend to limit access. Studies also show that companies that have stronger networks with investors are more financially resilient and have higher growth performance.

The literature on technological adoption emphasises the fact that digital transformation will improve productivity, quality control, and scalability. Cloud technologies help to cut down the cost of infrastructure and allow remote operations. Automation enhances consistency in workflow. Analytics enhances the use of data-driven decisions. AI tools increase the accuracy of the forecast and optimisation of operations.

The combination of funding and technology constructs has not been well studied in a single empirical structure. This paper fills this gap by analysing how they have a concurrent effect on the growth of start-ups and the efficiency of their operations.

(Aghina, 2024) Find that innovative responsiveness and competitive positioning are significantly enhanced with organizational agility. Their system or review highlights that agile structures can be used to ensure startups adapt fast to technological disruption particularly in the IT sector. The study highlights that agility-based ecosystems improve scalability, strategic flexibility and performance outcomes in fluid entrepreneurial environments.

(Amore, 2023) Micro-venture capital plays a central role in the field of early-stage startup financing by compensating the lack of seed capital. The study suggests that low venture capital investments increase the intensity of innovation and speed market entry of technology firms. The research comes out with a conclusion that the targeted micro-VC funding enhances the survival of high risk startups in the IT sector.

(Arroyabe, 2024) The productivity and financial performance of SMEs are boosted by the investment in cybersecurity. This is because technology based firms, especially IT startups gain a competitive advantage through active digital risk management, which also increases investor confidence and credibility in the marketplace.

(Audretsch & Belitski, 2022) Stable regulatory environments are one of the factors that greatly enhance the new firm creation, especially in high-technology industries. The paper suggests that unpredictability of the policy is a barrier to the entry into the business and underlines the need to establish stable institutional settings that would facilitate sustainable development of IT start-ups in developing economies.

(Basu & Roy, 2020) Technological startups in India are unprepared to face threats of cybersecurity in spite of increasing digital exposure. Limitations such as limited budgets and lack of awareness are the challenges. The research highlights the need to have systematic cybersecurity structures to have sustainability of IT startups and keep investors confident.

(Bhardwaj & Pandey, 2024) Government incentives: Government incentives can improve the performance of startups through reducing the risk at an initial stage and strengthening the innovation capabilities. In the case of Indian IT startups, especially, the study highlights that the efficacy of policies depends on the clarity, accessibility as well as the suitability to various growth stages. Additionally, it shows such incentives are best applied in combination with ecosystem support and in connection with the quantifiable results.

(Bisio & Colleagues, 2025) Automation adoption is a highly productive device, as it reduces errors and shortens working time. In the case of IT startups, it enables very fast scalability using lean teams and will provide consistency. Nevertheless, issues such as the lack of skills and start-up expenses are present, which demonstrates the need of capability-building to obtain the full benefits of automation.

(Chandra & Scott, 2023) Government incentives have a substantial influence on the financing outcomes, entrepreneurial motivation and risk-taking. Within the context of emerging economies, the founders are more confident to innovate under such incentives. The findings indicate that policy certainty and visibility can help bring the Indian IT startups on board to engage in formal programs and accelerate venture creation specifically.

(Melović, 2025) Market dynamism, R&D investment, and organizational capabilities are the factors that determine the outcomes of innovation. The success of IT startups lies in their ability to combine agile learning and development of capabilities in the face of uncertainty and it is important that access to finance is accompanied with innovation capacity to transform funding into scalable products.

(David, 2021) the Indian startup funding environment can be defined by the level of ecosystem maturity, network of investors, and policy efforts that impact access to finance. The chapter observes that there is concentration of venture capital in urban locations regarding IT start ups and continues to point out persistent procedural issues that promote regional differences in seed, venture capital and access to credit.

(Dossou & Agbodji, 2021) The awareness of government programs increases the involvement of startups in the support programs and enhances the performance of entrepreneurs. The research shows that policies funded can go wrong in case the people behind the policies are ignorant or not advised. It supports better access to outreach, clarity, and communication in support programs to provide more funds to Indian IT startups.

(Evidence from the Indian venture ecosystem, 2022) Inability to secure funding has been experienced by many startups as a result of poor documentation, financial forecasting, and understanding the expectations of investors. The results indicate that mentoring in a structured way, pitch funding, and compliance preparedness can make it more successful in funding. The procedural preparedness is also described being a vital factor in the outcome of venture capital in the context of Indian IT startups.

(Frontiers in Sustainability, 2025) Both papers suggest that the agile digital transformation should be prioritized through a structured approach to link agile practices to resilience and competitiveness. In the case of IT startups, it brings to light the fact that agile potential enables a faster adjustment to technology and customer needs and that funding efficiency rises when the start up invests in agile-based digital tools.

(Gunartin, 2023) According to evidence synthesis, entrepreneurial capabilities, such as recognition of opportunities, strategic planning, and mobilization of resources, have a strong influence on the performance of venture. In the case of IT startups, these skills would improve the investor preparedness by making the pitching, forecasting, and execution discipline better. The review postulates that the creation of such capabilities will improve the potential of the founders in transforming financing into growth and innovation successfully.

(Indrianti, 2024) Entrepreneurial mindfulness and ambidextrous leadership can improve resilience and scaling performance in uncertain situations (Indrianti, 2024). Leaders who manage to achieve the balance between exploration and execution are more efficient in resources management. With the background of Indian IT startups, the results suggest that leadership competencies can reduce the pressure of financing by increasing agility, execution discipline, and enhanced crisis response.

(Iskandar, 2022) Indian startups in the IT sector would benefit more in terms of competitive advantage and organizational performance by entrepreneurial skills such as innovation orientation, strategic thinking, and opportunity recognition. Such abilities enhance capital preparedness and scalability suggesting that capacity building goes hand in hand with economic reachability to attain sustainable expansion.

(JEMI Editorial, 2025) Innovation-oriented leadership skills are essential in the ability of firms to be more flexible and competitive over time. The research associates strategic leadership and better innovation performance and learning in the organization. In the case of IT start-ups, the leadership quality will influence the efficient utilization of financial assets and investment in technology and the role of the human-capability in the performance of the start-ups.

(JOTMI Editorial, 2023) Innovation capability as the combination of knowledge, technology, and managerial resources is essential to improving performance of firms and maintaining competitiveness, which is especially important in case of IT startups. This is not only in enhancing investor confidence, but also making external funding more efficient in obtaining scalable outcomes.

(Kapoor & Mehta, 2020) The important factors that drive AI adoption in small tech firms are perceived usefulness, technological readiness, and competitive pressure. It is reported that AI increases the effectiveness and innovation potential, in particular with Indian IT startups, where the readiness of AI helps in scaling and improves the effectiveness of external funding.

(Lee & Persson, 2021) Regulatory sandboxes reduce uncertainty in compliance and stimulate experimentation in new industries, which results in improved innovation and investment in sandbox-enabled ecosystems. To the Indian IT start up, particularly, these frameworks assist in mitigating regulatory risk, thus enhancing investor confidence and access to funding.

III. RESEARCH OBJECTIVES

1. To examine whether Funding Accessibility significantly impacts the Growth of IT Start-ups.
2. To analyse whether Technological Adoption significantly influences Operational Performance.

IV. RESEARCH HYPOTHESES

H_{a1}: Funding Accessibility significantly impacts the growth of IT start-ups.

H_{a2}: Technological Adoption significantly influences operational performance.

V. RESEARCH METHODOLOGY

- **Nature of Study:** Descriptive and analytical
- **Research Design:** Quantitative cross-sectional design
- **Data Type:** Primary data
- **Data Collection Tool:** Structured questionnaire (5-point Likert scale)
- **Sample Size:** 410 Startups across Mumbai and Pune.
- **Sampling Technique:** Stratified Random Sampling

VI. DATA ANALYSIS AND RESULTS:

TABLE 1 GENDER

Options	Frequency	Percent
Male	246	60
Female	164	40
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 2 AGE GROUP

Options	Frequency	Percent
18-30	85	21
31-40	113	28
41-60	142	35
Above 60	70	17
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 3 QUALIFICATION

Options	Frequency	Percent
Upto 12th / Diploma	10	2
Graduate	196	48
Postgraduate	172	42
Doctorate/PPG	32	8
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 4 ROLE IN STARTUP

Options	Frequency	Percent
Founder / Co-founder	157	38
Key Managerial Person/Manager	123	30
Technical Staff	80	20
Business/Marketing Staff	50	12
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 5 YEARS OF WORK EXPERIENCE IN IT INDUSTRY

Options	Frequency	Percent
Less than 1 year	70	17
1–3 years	79	19
4–6 years	85	21
7–10 years	81	20
More than 10 years	95	23
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 6 AGE OF STARTUP

Options	Frequency	Percent
Less than 2 years	29	7
2–4 years	165	40
5–10 years	196	48
More than 10 years	20	5
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 7 STARTUP SIZE (EMPLOYEES)

Options	Frequency	Percent
1–9	120	29
10–20	141	34
21–50	79	19
51–100	50	12
Above 100	20	5
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 8 SECTOR OF STARTUP

Options	Frequency	Percent
IT Services	75	18
Software Development	77	19
SaaS	53	13
AI / ML	62	15
FinTech	71	17
EdTech	72	18
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 9 PRIMARY SOURCE OF FUNDING

Options	Frequency	Percent
Bootstrapped	83	20
Angel Investor	67	16
Venture Capital	74	18
Govt. Grants	93	23
Bank Loan	93	23
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 10 ANNUAL REVENUE RANGE

Options	Frequency	Percent
Less than 50 Lakhs	95	23
50 lakh to 2 Crores	125	30
2 Crores–5 crore	87	21

5 crore- 50 Crore	52	13
Above 50 crore	51	12
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 11 LEGAL CONSTITUTION

Options	Frequency	Percent
Private Ltd	210	51
Public Ltd	40	10
LLP	160	39
Total	410	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

VII. HYPOTHESIS TESTING**H_{a1}: FUNDING ACCESSIBILITY SIGNIFICANTLY IMPACTS THE GROWTH OF IT START-UPS.**TABLE 12 H_{a1}: DATA SUMMARY: DESCRIPTIVE STATISTICS

No.	Factors/ Constructs/Key Variables	Frequency Percent	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
1.	FA1: Ease of obtaining seed funding	Frequency	65	92	25	125	103	410
		Percent	16	22	6	30	25	100
2.	FA2: Access to venture capital	Frequency	167	132	25	65	21	410
		Percent	41	32	6	16	5	100
3.	FA3: Availability of bank loans	Frequency	74	87	42	127	80	410
		Percent	18	21	10	31	20	100
4.	FA4: Access to government grants	Frequency	105	97	72	81	55	410
		Percent	26	24	18	20	13	100
5.	FA5: Investor networking opportunities	Frequency	77	85	40	134	74	410
		Percent	19	21	10	33	18	100
6.	FA6: Funding application support	Frequency	106	95	70	83	56	410
		Percent	26	23	17	20	14	100
7.	FA7: Availability of timely financial resources	Frequency	87	75	70	117	61	410
		Percent	21	18	17	29	15	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 13 DESCRIPTIVE STATISTICS

Sr. No.	Code	Statement (Short)	Mean	Std. Deviation	Skewness	Kurtosis
1	FA1	Ease of obtaining seed funding	3.27	1.39	-0.23	-1.12
2	FA2	Access to venture capital	2.12	1.23	0.88	-0.54
3	FA3	Availability of bank loans	3.13	1.34	-0.11	-1.01
4	FA4	Access to government grants	2.72	1.36	0.21	-1.08
5	FA5	Investor networking opportunities	3.10	1.33	-0.05	-1.06
6	FA6	Funding application support	2.73	1.35	0.19	-1.09
7	FA7	Timely financial resources availability	2.98	1.34	0.04	-1.10
		Overall Mean	2.86			

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 14 ONE-WAY ANOVA TEST STATISTICS (TURNOVER-WISE)

Turnover Group	N	Mean	Std. Deviation	Std. Error
Up to ₹1 Crore	138	2.61	0.88	0.075
₹1–5 Crore	146	2.92	0.91	0.075
Above ₹5 Crore	126	3.18	0.86	0.077
Total	410	2.86	0.90	0.044

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 15 ANOVA TABLE

Groups	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.872	2	7.436	9.218	0.001
Within Groups	328.516	407	0.807		
Total	343.388	409			

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 16 TEST OF HOMOGENEITY OF VARIANCES

Levene Statistic	df1	df2	Sig.
2.147	2	407	0.119

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

Interpretation

The study also tested the hypothesis of the variability in access to funding among start-ups of varying turnover levels. The findings show that there is a significant difference in the means of responses in turnover groups. Start-ups that have a higher turnover have indicated relatively high accessibility perceptions of funding compared to small firms. The difference that is witnessed among the groups is not a coincidence but a result of some variation. Thus, the level of turnover seems to have a significant role in determining the way IT start-ups get access to funding sources, investor backing, and accessibility of financial resources.

H_{a1}: Funding Accessibility Significantly Impacts the Growth of IT Start-ups.

Result: Supported

TABLE 17 POST HOC TEST (TUKEY HSD)

(I) Turnover	(J) Turnover	Mean Difference (I-J)	Std. Error	Sig.	95% CI Lower	95% CI Upper
Up to ₹1 Crore	₹1-5 Crore	-0.31	0.11	0.014	-0.58	-0.05
Up to ₹1 Crore	Above ₹5 Crore	-0.57	0.11	0.001	-0.84	-0.30
₹1-5 Crore	Above ₹5 Crore	-0.26	0.11	0.028	-0.52	-0.03

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

Interpretation

Start-ups with high turnover have much better access to funds compared to low turnover companies. The greatest difference is between the small and large turnover groups.

TABLE 18 EFFECT SIZE (ETA SQUARED)

Measure	Value	Interpretation
Eta Squared (η^2)	0.043	Small to Moderate Effect

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

Interpretation

The turnover justifies a variation of 4.3% in the funding accessibility perceptions. This means that there is a significant yet not dominant practical influence.

H_{a2}: TECHNOLOGICAL ADOPTION SIGNIFICANTLY INFLUENCES OPERATIONAL PERFORMANCE.

TABLE 19 H_{a2}: DATA SUMMARY

Question No.	Factors/ Constructs/Key Variables	Frequency Percent	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
1.	Adoption of cloud technologies	Frequency	30	40	25	175	140	410
		Percent	7	10	6	43	34	100
2.	Use of automation tools	Frequency	32	39	22	185	132	410
		Percent	8	10	5	45	32	100
3.	Use of analytics platforms	Frequency	35	49	27	180	119	410
		Percent	9	12	7	44	29	100
4.		Frequency	45	49	27	175	114	410

	Adoption of cybersecurity solutions	Percent	11	12	7	43	28	100
5.	Integration of digital tools	Frequency	46	47	25	177	115	410
		Percent	11	11	6	43	28	100
6.	Use of AI-based systems	Frequency	45	44	27	170	124	410
		Percent	11	11	7	41	30	100
7.	Speed of technology upgrading	Frequency	77	81	35	125	92	410
		Percent	19	20	9	30	22	100

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 20 DESCRIPTIVE STATISTICS TABLE – SECTION C

Sr. No.	Code	Statement (Short)	Mean	Std. Deviation	Skewness	Kurtosis
1	TA1	Adoption of cloud technologies	3.93	1.08	-0.78	-0.42
2	TA2	Use of automation tools	3.90	1.10	-0.74	-0.48
3	TA3	Use of analytics platforms	3.73	1.15	-0.60	-0.61
4	TA4	Adoption of cybersecurity solutions	3.64	1.21	-0.51	-0.76
5	TA5	Integration of digital tools	3.65	1.20	-0.52	-0.73
6	TA6	Use of AI-based systems	3.69	1.19	-0.56	-0.69
7	TA7	Speed of technology upgrading	3.16	1.33	-0.12	-1.05
		Overall Mean	3.67			

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 21 CORRELATION ANALYSIS

Variables	Technological Adoption	Operational Performance
Technological Adoption	1	0.648**
Operational Performance	0.648**	1
Sig. (2-tailed)	—	0.001
N	410	410

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

Correlation Interpretation:

Based on the correlation analysis, there is a strong positive relationship between operational performance and technological adoption. Better operational results were also found in organisations that indicated increased technology adoption, including cloud systems, automation, analytics, and AI tools. The relationship is strong, indicating that the advancement of technological capabilities goes hand in hand with the increased workflow efficiency and reliability of operations.

Note: Correlation is significant at the 0.01 level (2-tailed).

TABLE 22 REGRESSION ANALYSIS

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	0.648	0.420	0.418	0.542

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 23 ANOVA TABLE

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	86.372	1	86.372	293.417	0.001
Residual	119.980	408	0.294		
Total	206.352	409			

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

TABLE 24 COEFFICIENTS

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	1.214	0.143	—	8.489	0.001
Technological Adoption	0.612	0.036	0.648	17.129	0.001

(SOURCE: RESEARCHERS' ANALYSIS ON SPSS FROM PRIMARY DATA)

REGRESSION INTERPRETATION

The regression findings indicate that the adoption of technology is a significant way of enhancing operations within IT start-ups. The efficiency of the operations of firms increases significantly as they use cloud computing, automation, analytics, cybersecurity, and AI tools more frequently. The model characterises a significant part of the differences in operational performance, which suggests that the technology adoption is a significant factor of efficiency and process enhancement in start-ups.

The alternative hypothesis is accepted as the significance value is less than 0.05 (Sig. = 0.001) and the correlation is positive and strong. This validates the fact that the adoption of technology is a major determining factor in the performance of IT start-ups.

Hypothesis Conclusion

H_{a2}: Technological Adoption Significantly Influences Operational Performance

Result: Supported

VIII. CONSOLIDATED SUMMARY OF HYPOTHESIS

Hypothesis No.	Hypothesis Statement	Test Applied	Key Statistical Findings	Result
H _{a1}	Funding Accessibility significantly impacts the growth of IT start-ups	One-Way ANOVA	F = 9.218, Sig. = 0.001, $\eta^2 = 0.043$	Supported
H _{a2}	Technological Adoption significantly influences operational performance	Correlation & Regression	r = 0.648, R ² = 0.420, Beta = 0.648, Sig. = 0.001	Supported

IX. HYPOTHESIS-WISE FINDINGS

H_{a1} Statistical Findings

The results of ANOVA indicate that there is a great difference between the perception of the accessibility of funding in terms of turnover categories ($F = 9.218$, $p = 0.001$). Post hoc analysis establishes that the higher-turnover firms declare the much better access to funding. The effect size ($e2 = 0.043$) means that the practical impact of the availability of funds on the start-up growth is small to moderate.

H_{a1} Major Findings

Start-ups that have greater levels of revenue have greater integration in funding ecosystems such as access to venture capital and investor networks. Less funding is a relative barrier to smaller firms. Financial accessibility turns out to be a growth facilitator, which helps to scale activities. Nonetheless, it acts as a facilitating force and not the only factor that influences growth performance.

H_{a2} Statistical Findings

The correlation analysis indicates that there is a strong positive correlation between the adoption of technology and the performance in operations ($r = 0.648$, $p = 0.001$). The regression analysis shows that technology is the explanatory variable of 42% variance of operational performance ($R^2 = 0.420$). The standardized beta (0.648) verifies the fact that technological adoption has a great and significant impact on the operational outcomes in a positive way.

H_{a2} Major Findings

Companies that are actively embracing cloud computing, automation, analytics, AI, and cybersecurity are more efficient and reliable in their workflow. The integration of technology significantly enhances the productivity of operations and responsiveness. Digital maturity seems to be one of the key operational drivers that provide competitive benefits by optimizing processes and improving decisions.

X. DISCUSSIONS & OBSERVATIONS

The results highlight the twofold role of the integration of financial ecosystem and digital ability building in the determination of the IT start-up performance. The accessibility to funding varies growth strategies across firms. The greater the turnover start-ups have better the financial linkages, which implies that capital networks increase with the maturity of firms. This supports the cumulative advantage theory of entrepreneurial ecosystems.

Adoption of technology turns out to be a prevailing performance driver in operations. The high level of correlation and explanatory strength shows that digital tools are the centre of efficiency, scalability, and reliability. Technology has a strong predictive value, unlike funding which depicts a moderate effect size. This implies that operational excellence among IT start-ups is more directly linked to digital capability than to monetary access only.

The findings are consistent with the theory of dynamic capability that assumes that the competitiveness of an organization relies on the capacity to combine and reorganise resources. The availability of resources is boosted by funding and the execution of capability is reinforced by technology.

XI. CONCLUSION

This paper supports the fact that access to funding and adoption of technology have a strong impact on the performance outcome of IT start-ups. Access to funding is significant in distinguishing levels of growth in categories of turnover. Even though its practical impact is moderate, it serves as a basic facilitator that supports expansion and scaling operations.

The adoption of technology shows a greater influence on the performance in its operation. Companies that invest in digital transformation tools attain high efficiency, reliability, and optimization of workflow. Technology describes a significant amount of the difference in the operational performance, which is its focus in competitive IT settings.

Altogether, the results indicate that the integration of financial ecosystems and digital maturity have to be created concurrently. As much as funding would offer the required capital base, the technological adoption would turn resources

into performance outcomes. The policymakers ought to simplify the process of accessing grants and ventures among early-stage companies. To maintain competitive advantage, digital capability building should be of priority to start-up leaders.

The research empirically adds to the body of literature on start-up performance by bringing together funding and technology constructs in a single model of analysis, providing practical implications to entrepreneurs, investors, and developers of ecosystems.

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