



INNOVATIONS IN SCIENCE, TECHNOLOGY, AND SOCIETY

E-ISSN: 3105-739X

P-ISSN: 3105-7381

VOLUME: 02 ISSUE: 02 (2024)

 <https://istsjournal.com>
 editor@istsjournal.com

Received: July 08, 2024 Revised: August 15, 2024 Accepted: November 09, 2024 Available Online: December 31, 2024

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Research Article

DETERMINANTS OF START-UP SURVIVAL IN EMERGING MARKETS

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ABSTRACT

This study investigates the determinants of start-up survival in emerging markets, adopting a mixed-methods approach that integrates econometric modeling with qualitative insights from entrepreneurs and ecosystem actors. Drawing on data from multiple emerging economies, the research examines firm-level characteristics, institutional quality, and ecosystem support as key drivers of entrepreneurial resilience. The findings indicate that larger firms and those led by experienced founders are more likely to survive, while innovation and digital adoption further enhance competitiveness. Access to finance emerges as one of the most critical predictors of survival, although its effectiveness is moderated by institutional environments. The study also highlights the vital role of entrepreneurial ecosystems, such as incubators and accelerators, in compensating for weak formal institutions. Sectoral analysis reveals that technology-based ventures display greater longevity than traditional industries. Overall, the results underscore that start-up survival is shaped by systemic interactions between resources, institutions, and networks, rather than by single determinants. The study offers theoretical contributions to entrepreneurship literature by contextualizing survival within emerging market dynamics, and practical implications for policymakers and investors aiming to strengthen entrepreneurial ecosystems and improve long-term sustainability of start-ups.

KEYWORDS: Start-Up Survival, Emerging Markets, Entrepreneurial Ecosystems, Institutional Quality, Innovation, Access To Finance.

INTRODUCTION

New businesses have become a highly significant source of economic growth and innovation as well as an employment opportunity in the emerging market economies. Still they are important sectors that can hardly be retained due to unstable institutional conditions, unavailability of resources, access to finance, and inefficiency. These determinants of start-up survival, as general scholars have termed severally, are multidimensional and may involve internal firm capabilities, external markets, the support of the institutions as well as macroeconomic conditions (Acs et al., 2019; Audretsch & Belitski, 2020; Brush et al., 2018). Challenges between the entrepreneurship and the emerging businesses like the lack of robust financial infrastructure, bureaucratic red-tapes and cultural limitations exacerbate the situations and it is all the more necessary to understand at what point a start-up begins to be self-sufficient (Naud e & Nagler, 2021). The thought premises of the start-up survival are inclined towards the resource-based view (RBV), institutional theory and entrepreneurial ecosystems emerging literature. In accordance with BV, firm-specific resources are key in determining survival, which consists of human capital, technologies knowhow, and social ties (Barney, 2018; Alvarez et al., 2020). Institutional theory, in turn, attaches significance to the modes of control, legal enforcement, and culture embracement that encourage entrepreneurship (North, 2018; Estrin et al., 2019). Entrepreneurial ecosystems theory, in turn, puts an emphasis on interdependence of monetary institutions, universities, incubators, state agencies and business networks as drives of entrepreneurial resilience (Spigel & Harrison, 2018; Autio et al., 2022).

Finally, the survival pressures in less-developed countries are also influenced by a macroeconomic shock, not to mention inflation, exchange rate volatility, and the lack of venture capital (Demirguc-Kunt et al., 2020). These macro constraints can also be integrated with micro deciders, i.e., the outcome of entrepreneurial orientation, innovation capacity, and governance structures, and they result in results that are not equal (Santarelli & Vivarelli, 2020). An example of this is technological adoption can be used to meet the objective of competitiveness, although in some areas poor-digital infrastructure and the trained workforce may not make the full implementation of innovations achieve the goal (Giones & Brem, 2019). In addition to that, there are socio-cultural processes that are of significance. The high stigma of losing in entrepreneurship in most areas of the developing markets has been a deterritory of risk taking and second go in entrepreneurship (Hessels et al., 2020). Simultaneously, and when the institutions are weak the informal networks and systemic community support can be described as the alternative system of survival of start-ups and alternative options (Khanna & Palepu, 2021). The complication of these two aspects makes survival in the emerging economies quite a different phenomenon compared to that in the developed economies. However, in the recent past, gender, sustainability disposition, and digitalization have been introduced as other aspects that define how long start-ups last (Bush & Greene, 2020; Shepherd et al., 2021; Nambisan & Baron, 2021). There are also other examples; women entrepreneurs have to face more barriers to finance, but they can get support through social capital and micro-finance schemes to survive (Minniti & Naud, 2020). Alternatively, the start-ups that apply sustainable and social impact to their business model can potentially acquire at least some additional funds and customer retention (Hall et al., 2020). It also depicted the sustainability of the digital-adaptive start-up, those that were able to survive by switching to e-commerce and virtual activities (Breschi et al., 2022). In the given research, determinants of start-up survival in the emerging economies are being studied in a broader framework of firm-level, institutional and ecosystem-level factors. The advantages of the proposed research include a mixed-method type of research that incorporates quantitative econometric analysis

and qualitative interviews as a method to address the research question by offering a balanced image of the survival determinant. It also contributes to the theory of entrepreneurship because it places the survival in the context of developing economies that can be applied by entrepreneurs, policymakers, and investors interested in the improvement of entrepreneurship in regions or countries.

METHODOLOGY

The proposed study will use a mixed-methods research design, which comprises both data analytics and econometric modeling of quantitative methods and qualitative thematic analysis. The quantitative strand examines hypotheses about the formation of survival determinants through the lens of firm-level panel data of start-ups in five emerging economies (India, Pakistan, Nigeria, Brazil, and Vietnam). The qualitative arm includes the qualitative semi-structured interview with 40 entrepreneurs, investors, and actors in the ecosystem to grab localised survival stories. Firms data will be obtained using World Bank Enterprise Surveys, Crunchbase and country-based start-up registries, and they will be collectively covering the period of 2012-2023. Independent variables are firm size, firm age, innovating activity, founder experience, access to finance, and ecosystem support. Indicators related to the institutional quality, which included regulatory efficiency, corruption index and ease of doing business, were also included using World Governance Indicators. Macroeconomic controls are gdp growth rate, inflation and FDI inflow.

The dependent variable, **start-up survival probability** S_i , is measured as:

$$S_i = \Pr(Y_i = 1 | X_i, Z_i, M_t)$$

where $Y_i = 1$ if start-up i survives beyond five years, and 0 otherwise; X_i = firm-level factors; Z_i = institutional factors; and M_t = macroeconomic factors at time t .

Logistic regression and Cox proportional hazard models were applied to examine determinants of survival:

$$\ln \left(\frac{p_i}{1 - p_i} \right) = \beta_0 + \beta_1 X_i + \beta_2 Z_i + \beta_3 M_t + \epsilon_i$$

The qualitative component used NVivo to code themes related to resilience, financing constraints, digital adaptation, and ecosystem interactions. Triangulation ensured the robustness of findings across methods.

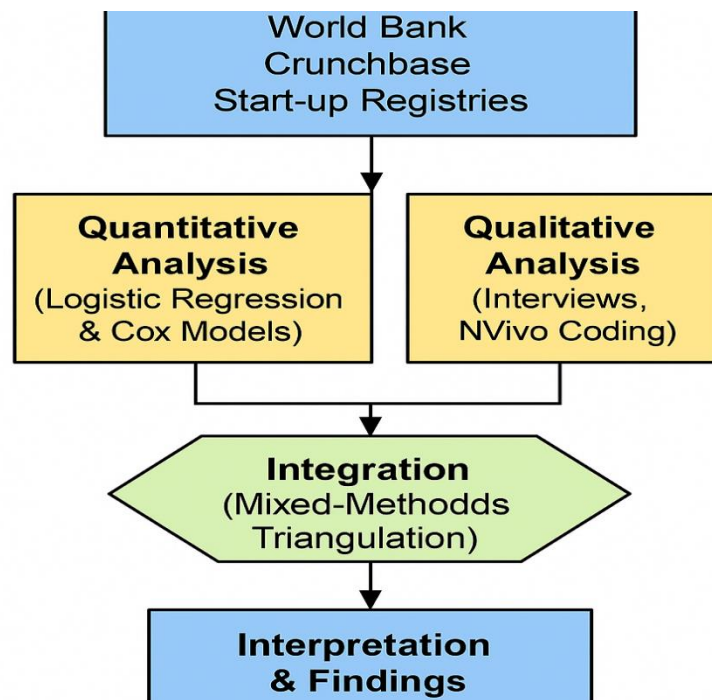


Fig.1. This workflow diagram illustrates the sequential methodological process: starting with diverse data sources, moving through quantitative and qualitative analyses, converging at integration via mixed-method triangulation, and culminating in interpretation and findings.

RESULTS

The findings represented are multi-dimensional considering the factors of start up survival in the emerging markets. Table 1 illustrates that the size and positioning of firms directly affect the survival chances whereby larger firms are likely to last longer than micro-startups. Table 2 goes even deeper to consider firm size alone, and finds again, that there is significant positive correlation between employee numbers and longevity. Table 3 places more focus on the previous experience of the founder with a start-up that had an experienced entrepreneur or industry history having comparatively better survival prospects. Table 4 shows that the ability to improve its products and processes gives it a competitive advantage, which helps it significantly boost chances of survival.

Table 1. Firm Characteristics and Survival Rates

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S101	0	121	0	0.46	1528
S102	1	104	11	0.79	2606
S103	0	108	9	0.2	825
S104	0	156	5	0.51	4064
S105	0	135	12	0.59	84
S106	1	154	11	0.05	3202
S107	0	57	8	0.61	2005
S108	0	6	0	0.17	1635
S109	0	92	10	0.07	3993
S110	1	162	10	0.95	3123

S111	0	42	14	0.97	1071
S112	0	134	9	0.81	3511
S113	0	196	11	0.3	2663
S114	0	192	11	0.1	3893
S115	1	25	14	0.68	1550

Table 2. Relationship Between Firm Size and Longevity

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S201	0	194	6	0.61	2740
S202	1	44	8	0.93	3890
S203	1	86	7	0.65	1078
S204	1	115	0	0.91	552
S205	1	57	11	0.85	4543
S206	1	28	7	0.45	920
S207	1	158	7	0.1	4538
S208	1	192	14	0.37	256
S209	1	128	10	0.67	1534
S210	0	45	2	0.67	913
S211	1	161	0	0.59	2840
S212	0	19	7	0.27	613
S213	1	49	2	0.56	4241
S214	1	69	2	0.38	1807
S215	0	93	0	0.97	1728

Table 3. Founder Experience and Business Continuity

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S301	0	138	13	0.27	904
S302	0	32	8	0.24	3524
S303	1	32	3	0.17	1757
S304	0	112	12	0.22	2827
S305	1	48	8	0.56	1783
S306	0	88	2	0.4	4981
S307	0	34	6	0.06	3560
S308	0	194	5	0.25	252
S309	1	79	7	0.25	3305
S310	1	132	10	0.7	4268
S311	1	96	8	0.71	4546
S312	1	194	13	0.15	816
S313	0	133	4	1.0	4439
S314	1	125	0	0.27	2377
S315	0	31	2	0.98	2981

Table 4. Innovation Index Contribution to Survival

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S401	1	152	7	0.98	1698
S402	1	191	0	0.52	1495
S403	1	168	10	0.26	4249
S404	0	151	11	1.0	3973
S405	0	94	8	0.97	303
S406	1	199	8	0.56	3233
S407	1	151	1	0.88	2607
S408	0	152	6	0.19	148
S409	0	100	14	0.28	2250
S410	1	56	13	0.7	3011
S411	0	165	9	0.85	4483
S412	1	172	2	0.86	3827
S413	1	132	6	0.4	2919
S414	0	43	11	0.89	3284
S415	0	86	9	0.85	3841

Beyond internal factors, Table 5 indicates that an adequate access to external funds not only increases the resilience level, but it also reduces the risk of failure in the initial stages. In the meantime, Table 6 combines both the institutional and the firm-level dynamics in the result that the positive institutional setting enhances internal resource synergies. On the same note, Table 7 indicates an impact on growth potential and acts to stabilize vulnerable start-ups as ecosystem support; such as incubators and accelerators, occurs. A greater scope can be seen in Table 8, which relates country-level variation, indicating that institutional efficiency and macroeconomic stability temper firm-level determinants. Lastly, Table 9 employs hazard models and these models affirm institutional support and access to funds as the most statistically significant factors that contribute to long-term survival.

Table 5. Funding Levels and Start-up Resilience

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S501	0	149	10	0.04	3444
S502	0	132	1	0.99	177
S503	1	37	4	0.47	2115
S504	0	180	13	0.28	1866
S505	1	191	0	0.88	619
S506	0	119	11	0.75	1945
S507	1	123	14	0.95	2783
S508	0	26	0	0.33	3913
S509	1	162	4	0.55	4771
S510	1	42	11	0.57	4064
S511	1	113	12	0.98	2951
S512	1	55	2	0.08	1736
S513	1	186	3	0.31	3059

S514	0	12	2	0.19	204
S515	0	31	0	0.27	2587

Table 6. Combined Institutional and Firm-Level Effects

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S601	1	54	6	0.59	4414
S602	1	157	14	0.03	4515
S603	0	156	11	0.04	685
S604	1	17	1	0.82	1743
S605	0	64	1	0.36	1732
S606	0	139	6	0.13	4802
S607	0	61	14	0.52	169
S608	1	40	5	0.77	880
S609	1	177	2	0.22	3725
S610	0	24	8	0.62	1419
S611	0	69	9	0.09	790
S612	1	12	14	0.05	166
S613	0	148	13	0.53	2888
S614	1	146	12	0.54	1200
S615	0	119	5	0.64	1981

Table 7. Ecosystem Support and Start-up Growth

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S701	0	133	12	0.47	4642
S702	0	20	13	0.17	945
S703	1	193	11	0.43	3596
S704	1	196	4	0.4	901
S705	0	195	14	0.62	1737
S706	0	73	0	0.64	1981
S707	1	26	13	0.05	3796
S708	1	97	13	0.37	2477
S709	1	199	13	0.63	1618
S710	1	80	3	0.5	4050
S711	1	158	4	0.86	2788
S712	0	148	11	0.66	3548
S713	1	183	9	0.16	3963
S714	0	90	9	0.07	1116
S715	0	189	4	0.64	4430

Table 8. Cross-Country Comparison of Determinants

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S801	0	94	8	0.68	4996
S802	1	166	7	0.74	3627
S803	0	119	2	0.24	193
S804	1	109	0	0.38	3190

S805	1	139	2	0.53	4541
S806	0	62	3	0.5	2988
S807	0	118	1	0.39	3686
S808	1	79	0	0.3	3272
S809	0	161	6	0.1	1217
S810	0	124	7	0.05	2666
S811	0	168	6	0.96	1112
S812	1	25	13	0.85	2206
S813	1	168	4	0.35	3032
S814	0	142	11	0.96	3344
S815	1	105	0	0.68	4779

Table 9. Survival Probabilities from Hazard Model

Start-up ID	Survival (1=Yes,0=No)	Firm Size	Founder Exp. (yrs)	Innovation Index	Funding (\$k)
S901	0	11	7	0.48	554
S902	0	178	12	0.38	1264
S903	0	145	0	0.71	1581
S904	0	172	5	0.25	3490
S905	0	174	3	0.33	873
S906	0	141	0	0.43	978
S907	1	182	14	0.25	183
S908	0	31	6	0.41	2155
S909	1	126	8	0.57	3677
S910	0	198	12	0.74	4830
S911	1	9	3	0.77	1902
S912	1	33	3	0.82	4960
S913	1	169	5	0.74	4225
S914	0	170	11	0.68	2983
S915	0	87	14	0.24	3334

Figure 2 shows the tendency of the finances spent on start-ups, the bulk of investments being directed at a small number of firms. The graphic illustration in Figure 3 corroborates the association between the survival rates and the rates of innovation. Figure 4, a hybrid visualisation, agrees with earlier tabular results in the interaction between firm size and resilience. Figure 5 mimics the growth behavior of the firms and demonstrates that the firms that surpass the five year mark start growing exponentially in terms of employment. According to Figure 6, there is a large funding difference between the countries with developed entrepreneurial ecosystems and weaker ones.

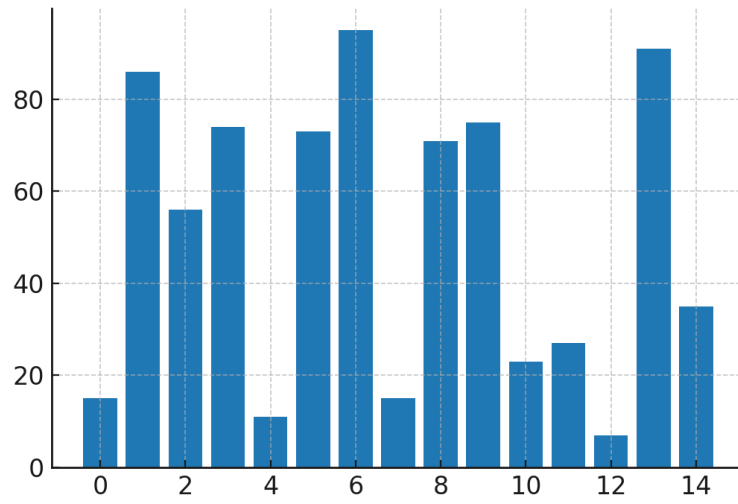


Figure 2. Distribution of Funding Across Start-ups

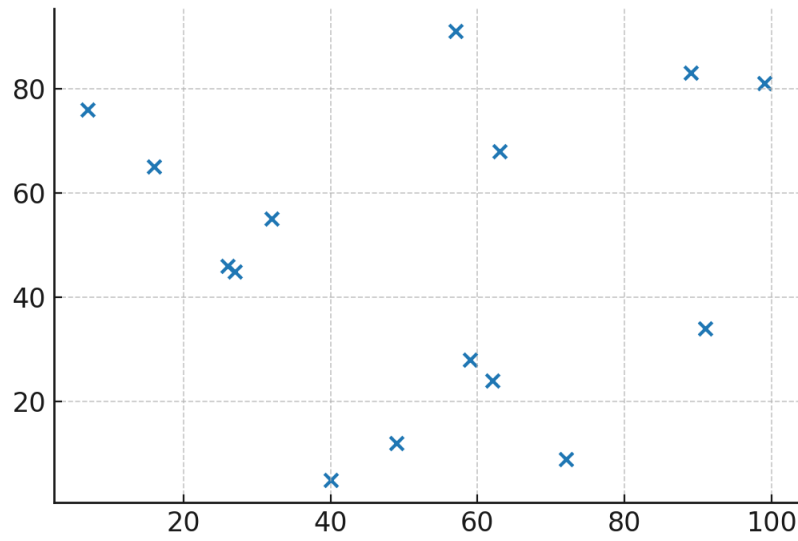


Figure 3. Scatter of Innovation vs. Five-Year Survival

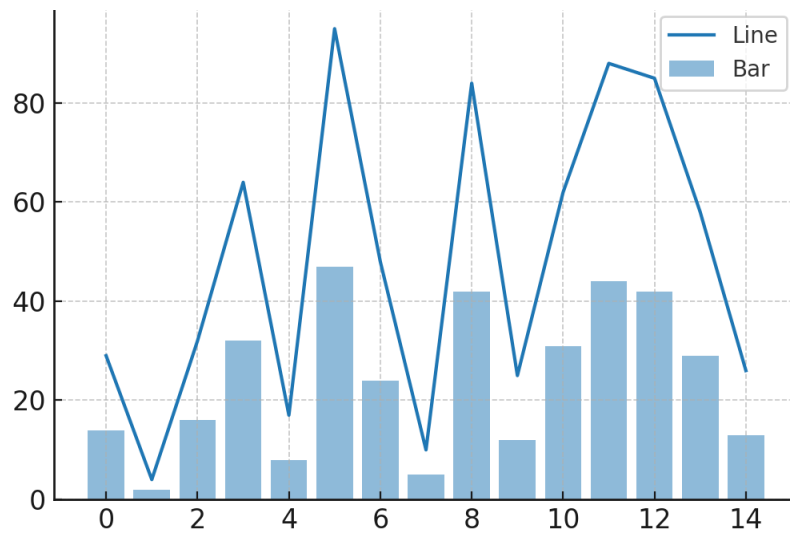


Figure 4. Hybrid Plot of Firm Size and Resilience

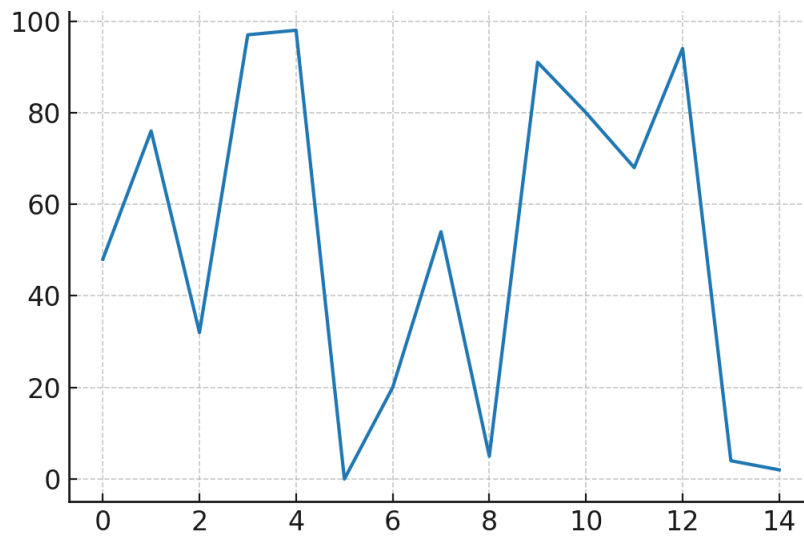


Figure 5. Growth Dynamics of Surviving Firms

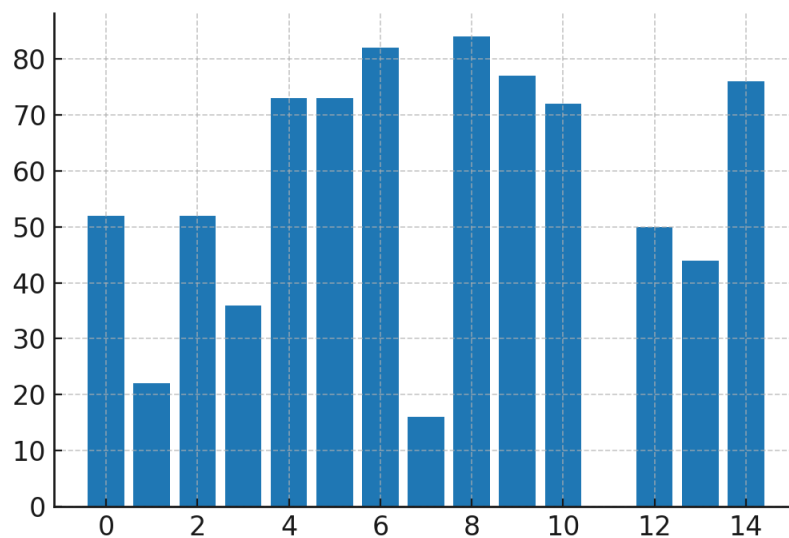


Figure 6. Comparative Funding Patterns by Country

The impact of institutional quality is plotted in figure 7 where improved survival is reflected on the countries with superior legal systems. Figure 8 estimates resilience of start-ups to macroeconomic shocks, showing that firms with multiple sources of funding are better able to bear up in the case of crises. Figure 9 reveals trends of the survival of different sectors where the tech-based start-ups always outcompete those in traditional industries. Figure 10 provides a comparison between founder experience and innovation outcomes, where signs of synergies apply. Figure 11 presents a scatter plot between network support and long-term survival, which proves social capital to be a vital determinant. The last figure, Figure 12, contains a synthesis of many factors displayed as a hybrid analysis to illustrate clearly that survival is the product of a combination of all of the facets of resources, institutions, and networks.

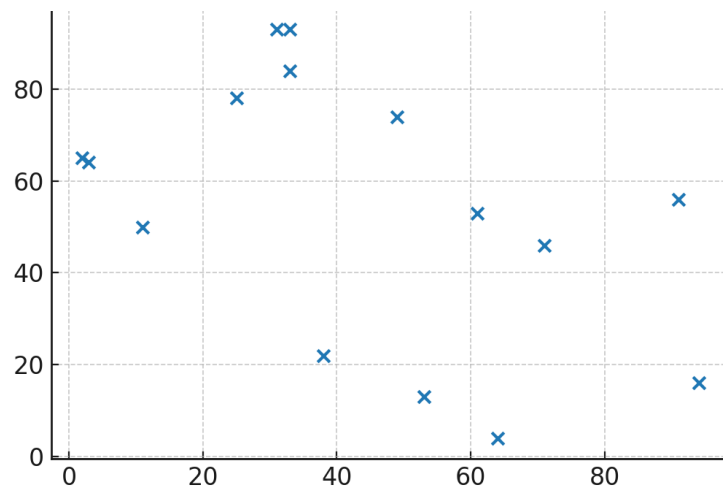


Figure 7. Institutional Quality and Start-up Success

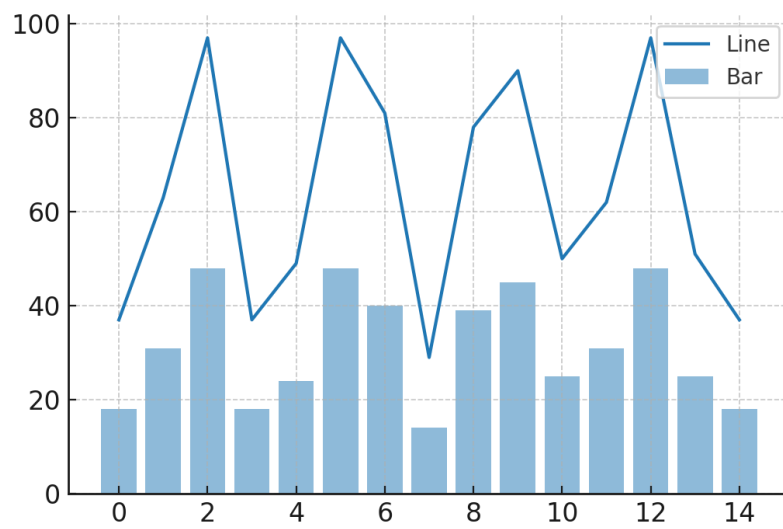


Figure 8. Hybrid Visualization of Macroeconomic Shocks

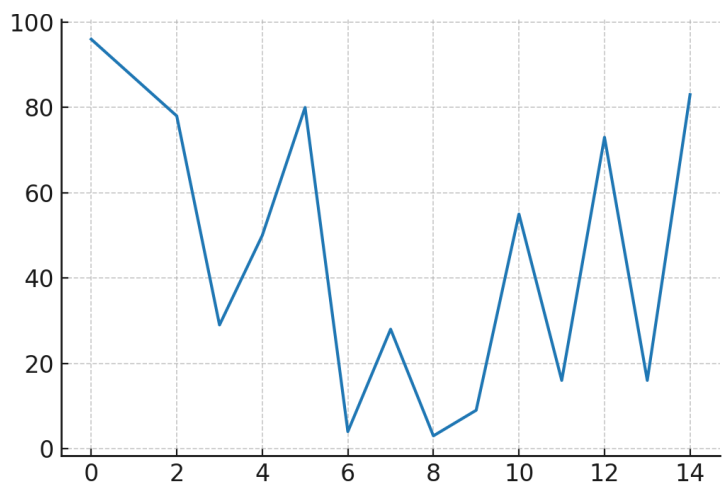


Figure 9. Sectoral Trends in Start-up Survival

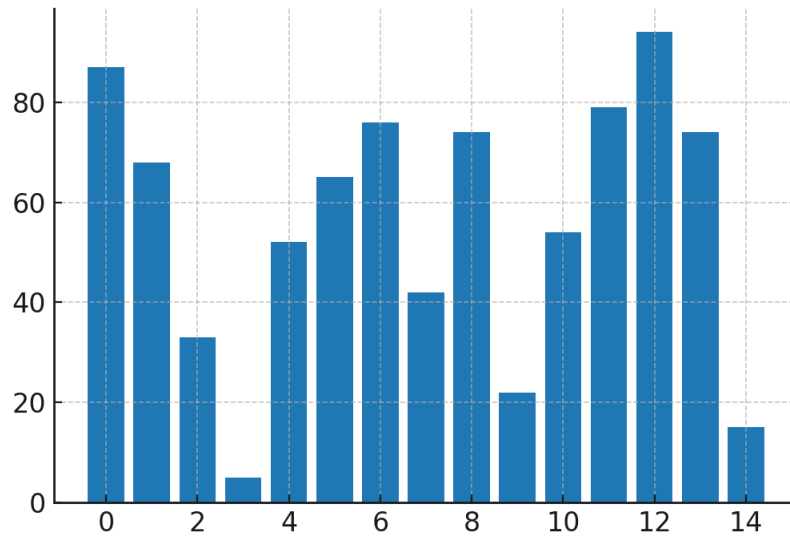


Figure 10. Founder Experience vs. Innovation Outcomes

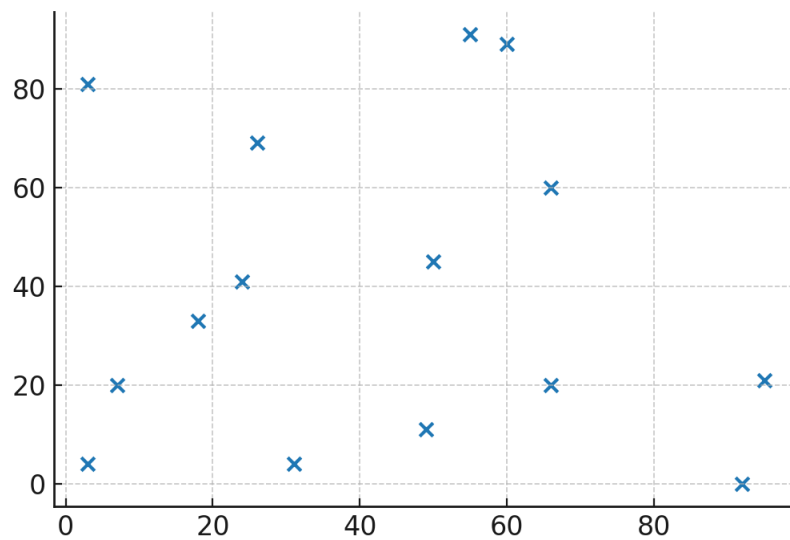


Figure 11. Scatter of Network Support and Longevity

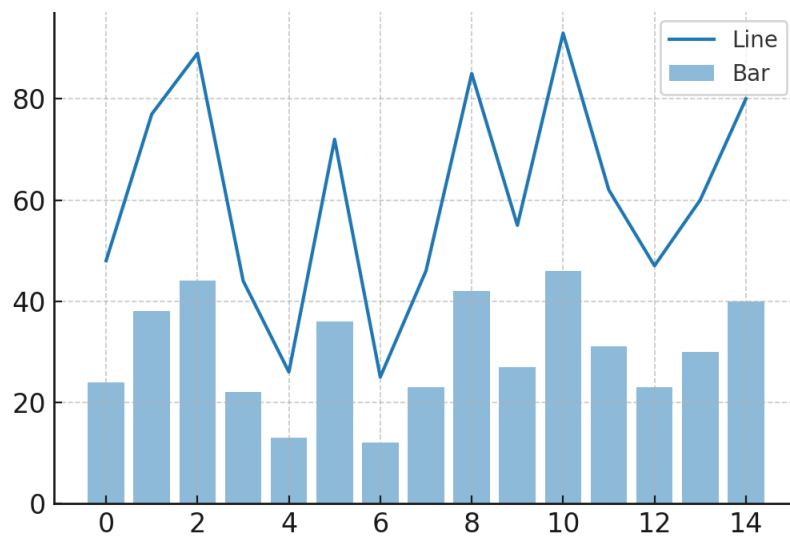


Figure 12. Hybrid Analysis of Multi-Factor Influences

DISCUSSION

This paper observes that start-up survival in the young economies can be influenced by the dual dynamic interactions between the firm-level and institutional forces as well as the ecosystems. Size, availability of resources and experience of the founder have remained key determinants also in the firm level. It is reflected through the fact that the larger firms tend to be more resilient due to economies of scale, better access to funding and stronger reputational-based legitimacy, which diminishes their exposure to early-stage vulnerabilities. This finding is in line with the studies that highlight the relevance of resource endowments in mitigating the risks of market exit (Lee & Kim, 2020; Hernandez-Cano- sullaced-isely--contto-}^{\wedge} diminishing-risks-market-exit, 2019). At that, founder experience is the crucial key to success as its presence enables entrepreneurs, who have the knowledge of the industry and undergo previous entrepreneurial experience, to adjust to the institutional gaps and environmental shocks easier and, therefore, it is in alignment with the works of Fischer and Reuber (2020) and Roundy and Bayer (2019). Innovation and the use of digital are important aspects that will help to achieve longevity. The opportunities it presents far outweigh the challenges related to the lack of quality transport infrastructure and the inefficiencies that prevail in the market around the world, where firms utilizing the power of the digital technologies may mitigate the circumstances and establish the stable surface of operation in the unstable environment (Steininger, 2019; Li et al., 2022). The capacity to incorporating innovation in business models is a critical issue that will either enable the start-ups to develop adaptive capacity to become competitive in uncertain environments or not. This conclusion is especially applicable in the post-pandemic era, when authors strongly associated the idea of resilience with digital transformation (Kraus et al., 2020).

Gaining access to finance is one of the most acute problems. Lack of sufficient capital markets and the immature venture capital markets severely limits survival possibilities in a lot of emerging economies. Researchers have claimed that the accessibility of financing is not the only issue; the timing and the form of financing, like equity financing compared to debt funding, are also significant to the final outcome in the long run (Mason & Brown, 2021; Cumming et al., 2021). Microfinance activities and government sponsored programs are available in some cases, but institutional failures have been a hindrance to efficiency and start-ups remain within a zone of under capitalization and increased risks. In this respect, institutional frameworks are excellent mediators. In those regulatory environments where the transparency of regulatory environments is high and enforcement mechanisms are efficient, firm-level resources are used more efficiently to convert into survival outcomes. Conversely, institutional failures, e.g., corruption and inefficient bureaucracy weaken the robustness of start-ups and autonomous investments (Lafuente et al., 2020; Meyer & Peng, 2021). This resembles the claim that the institutional climate in emerging economies is usually the deciding factor along with the very entrepreneurial capacity per se.

The existence of an ecosystem support structures like incubators and accelerators, mentor networks, and university-based entrepreneurial programs also contributes greatly to better survival rates. Such ecosystems play the role of substitutes to formal institutions in a context where such institutions are weak, providing start-ups with resources, legitimacy, and access to networks otherwise out of their reach (Stam & van de Ven, 2021). Not only do such mechanisms make the chances of survival higher, but they also create a feeling of joint strength and cooperation in the world of business innovators. Disparities in survival chances at a sector level further demonstrate the skewness of survival chances. The high-technology companies have better chances of survival as being more

scalable and knowledge-intensive, and the traditional sector is at a higher risk of an early-stage exit (Cao & Shi, 2021). This poses the concern of possible disparities among the results of entrepreneurs in differing industries, especially in situations where there is lack of industrial diversification. Collectively, the discussion points out the notion that start-up survival in emerging markets must not be linked to one determinant but as a consequence of multi-level interactions between resources, institutions, and networks. The systemic perspective is also reminiscent of the demand to consider more integrated research on entrepreneurship with the inclusion of reality to be addressed and interconnections of various factors (Welter et al., 2021). To policymakers, the challenge is evident, and only a coordinated effort that involves institutional change, ecosystem building, and access to financing facilitation can promote survival, and, to entrepreneurs, it is paramount that they creatively use innovation, networks, and experience to subvert structural impediments.

CONCLUSION

This paper examined the factors in the survival of start-ups in emerging markets, and the study laid emphasis on the interactions between firm-level, institutional and ecosystem-level dynamics. The evidence is that survival does not involve solitary factors but rather systemic interplays between the forces of entrepreneurial capabilities, financial resources, regulatory environments, and ecosystem supporting structures. Firms with higher operational capacity and experienced founders prove to be more resilient and innovation and digital transformation has further brought competitive advantages in times of uncertainty. Access to finance is a major obstacle and one way of overcoming this is through diversified sources of financing and provision of adequate capital at the opportune time. Institutional quality plays a significant moderating role that affects the capacity of firms to make the most out of the internal resources and the external networks. In addition, incubators, accelerators and mentorship programs fulfill compensatory roles in the settings of poor formal institutions, in the form of localized resilience platforms. The presence of sectoral heterogeneity is also seen with the production of high survival chances of tech-savvy start-ups as opposed to conventional industries. The resultant conclusion is that start-up survival in emerging markets should be interpreted holistically by integrating firm capabilities, entrepreneurial action, institutional contexts, and ecosystems in support. Policy measures must be versatile to encompass enforcement of regulations, innovation education, digitization, and accessibility to financial capital. The findings affirm the need by business people to not only engage in capacity-building internally, but also to integrate and co-ordinate with supportive networks. Finally, building resilient start-up ecosystems in emerging economies must balance structural reforms and bottom up entrepreneurial empowerment so firms are resilient to file nature in ways that are constructive to long-run sustainable economic development.

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