Critical Success Factors & Fundability of Indian Startups: Insights from Key-Decision Makers of Indian Startup-Ecosystem

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Startup Funding has been always risky, as the investors are not confident whether the investee Startups will be successful and their investment will yield the desired returns. This risk can be mitigated by development of a measurement-index representing the fundability of Startups which can aid the investors for making decisions for investment in startups. In this study, an interview questionnaire was disseminated through email/goggleforms to the key decision makers of Indian-Startup-Ecosystem to gain insights into the issues relevant for identifying 'critical success factors for startups and 'development of a Startup-fundability-index', i.e. (a) Reasons for failure of startups, (b) Metrics for Startupsuccess, (c) Need for a uniform and transparent Startup-fundability-index, (d) Metrics on which a mathematical formalism for determining the fundability of a Startup could be based (e)Relationship between chances of Startup's success and their fundability from the perspective of investors. The dissemination of questionnaire was followed by personalinterviews/e-mail/WhatsApp/telephonic communication. Seven Key-Decision-Makers responded to the interview questionnaire. In this research paper, authors present these responses, which provide insights to the critical factors for success of Indian Startups and also indicate that these factors are positively related with the proposed Startup-fundabilityindex. The responses also provide a way ahead for developing entrepreneurial mind-sets in students at a young age. While the proposed Startup-Fundability-Index can be used by investors for making decisions for funding the startups, the startups are expected to use it for reiterating and pivoting their business models.

Keywords: Entrepreneurship, Startups, Fundability, Startup-India, SISFS.

1. Introduction

In a developing economy like India, the problem of unemployment is so acute that even candidates with higher qualifications such as BTech and MBA, are amongst applicants for Group-D government jobs [1][2]. India's unemployment rate crept up to nearly 8% in December 2021, according to the CMIE (Centre for Monitoring Indian Economy) [3]. If these unemployed youth could be transformed into entrepreneurs, then they would have become job providers instead of job seekers. The linkage between Entrepreneurship and Economic Growth has been studied by several Economists who have concluded that Entrepreneurship and Economic Growth are positively correlated [4][5]. Further, amongst entrepreneurs too, the contribution of technology based entrepreneurs towards economic growth is more significant [6]. This has drawn the attention of many governments all over the world. In India, Government has initiated "Startupindia" for entrepreneurs working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property. Government of India initiated the Startup-India Program on 16th Jan 2016[7]. In last six-years Indian Startup Ecosystem has progressed remarkably. As per Economic-Survey 2021-22[8] government has recognised 61,400 startups so far. This makes India as the world's third largest Startup ecosystem, with 8338 unicorns (out of which 44 startups achieved unicorn status in 2021). However, data shows that the Startup Life-Cycle between seed and late stage has been characterised by a significant gap in the funding and requirements of startups. Of those startups that received seed funding, only 27 percent succeeded in securing early stage funding [9]. Therefore, it is important to improve the availability of funds so as to ensure that more number of startups are able to cross the valley of death. This is although more important in view of the fact that only 402 startups could avail the income tax exemptions till January 2022. Most probably this low number of Startups availing the income-tax exemption also signifies the fact that the number of startups who have reached to the stage of making profits is still very low. In other words, the number of successful startups is still very low. Thus, there is a need to identify the critical factors for success of startups. Also the critical factors which may lead to failure and need to be avoided also need to be identified. Further, an index needs to be developed for measuring the fundability of the startups. Considering the importance of seed funding DPIIT (Deptt. for Promotion of Industry and Internal Trade), Govt. of India has constituted an EAC (Expert Advisory Committee) for SISFS (Startup-India Seed Funding Scheme) [10].

The investors in the Indian Startup Ecosystem consist of angel-investors, venture capitalists and several government departments. These government departments, in addition to their regulatory role also provide the much needed funds. The leading fund in this context is the Startup-India fund-of-funds. This fund is managed and operated by SIDBI (Small Industries Development Bank of India), which in turn disburses these funds to VCs. The other government department which provide funding are DST(Department of Science & Technology) through – NSTEDB(National Science & Technology Entrepreneurship Development Board)[11] & TDB(Technology Development Board)[12], Department of Scientific & Industrial Research(DSIR) through NRDC, MEITY(Ministry of Electronics & Information Technology) through TIDE program, Department of Biotechnology(DBT), Department of Defence Research & Development(through TDF program[13]) and Department of Defence Production(through iDEX). Industry Chambers (e.g. CII, FICCI, ASSOCHAM, PHDCCI and NASSCOM) also play a major role in the Indian Startup Ecosystem.

The success of Startup India is expected to create employment and lead to an accelerated economic growth leading to achievement of the national goal of Self-Reliant India (Atma-Nirbhar Bharat). However, entrepreneurship has its own challenges. The failure rate of tech startups is very high [14]. The failure of startups leads not only to loss to investors but also to loss of employment and creates a negative impact on the economy. Because of the fear of anticipated losses due to the very high rate of failure of startups, investors tend to adopt a very conservative approach while funding the Startups. Therefore, to facilitate the minimisation of losses due to failure of Investee-Startups, it is very important to identify the critical factors (pertaining to Investee-Startups as well as Startup-Investors) for making a decision for Startup-funding, and develop a measurement-index (proposed to be called as Startup-Fundability-Index) based on these critical factors for funding process for Startup-funding. Against this backdrop, the corresponding author has undertaken this study for gaining insights to the critical factors (proposed to be called as Fundability-Index)as a part of his doctoral thesis work under the guidance and supervision of the co-authors.

2. Methodology

It can be appreciated that the success of such a study is highly dependent on the quality and quantity of data collected, which became an extremely challenging task in the prevailing situation arisen due to COVID-19 Pandemic since March 2020. To overcome these challenges, it was considered prudent to seek active support of the key decision makers of the Indian Startup Ecosystem by conducting an Email/Google-forms based interview of Key decisions makers of the Indian Startup Ecosystem followed by personal-interviews/e-mail/WhatsApp/telephonic communication. Following Seven Key decision makers (KDMs) (without their name & designation details) who responded to the interview questionnaire is tabulated in Table 1. In this research paper the affiliation of the KDMs has been retained so as to provide credence to their opinions. However, views expressed by all KDMs were their personal views and should not be attributed to the organisations from which they were affiliated. Further, the views expressed by all KDMs are for academic purposes only.

Table 1: The list of the Seven Key-Decision-Makers (KDMs)

| Sl. No. | Key-Decision- Maker(KDM) | Affiliation |
|------------|-----------------------------|---|
| 1. | KDM-1 | Experts Advisory Committee of Startup India seed Funding Scheme (SISFS), Startup India Section, Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India, New Delhi- 110011 |
| 2. | KDM-2 | Defence Research & Development Organisation, DRDO Bhawan, Rajaji Marg, New Delhi-110011 |
| 3. | KDM-3 | National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology, Ministry of Science & Technology, Government of India, Technology Bhawan, New Mehrauli Road, New Delhi-110016 |
| 4. | KDM-4 | FITT (Foundation for Innovation & Technology Transfer),IIT Delhi, Hauz-Khas, New Delhi- 110067 |
| 5. | KDM-5 | CII Central Office, Mantosh Sondhi Centre, 23 Institutional Area, Lodhi Road, New Delhi-110003 |
| 6. | KDM-6 | Experts Advisory Committee of Startup India seed Funding Scheme (SISFS),Venture Catalysts, 203-206, Mittal Commercia, Sakinaka, Hasan Pada Rd, Mittal Industrial Estate, Marol, Andheri East, Mumbai, Maharashtra-400059 |
| 7. | KDM-7 | Startup India Section, Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Udyog Bhawan, New Delhi-110011 |

3. Results (Insights gained from responses of Key-Decision Makers (KDMs)):

In this section authors summarise the key-insights gained from responses received from the KDMs of the Indian Startup Ecosystem who responded to the Interview questionnaire or whose interviews could be conducted in person. While summarising the results/insights/views quantitative 765

parameters have been preferably considered. The total number of results/insights/views has been restricted to the number of metrics asked in the question. These responses & insights are presented in the Table-2 below.

| Q1. | What in Your opinion are the top 3 reasons, due to which Startups fail? |
|-------------------|---|
| Response KDM-1 | Lack of Complementary skills and Compatibility in the team. Wrong selection of Idea/Innovation. Incorrect funding support. |
| Response KDM-2 | Lack of Design Capability in the team. Lack of Novelty in the Proposed Product/ Service. Lack of Fabrication and manufacturing Infrastructure. |
| Response KDM-3 | Lack of Timely funding. Lack of Product to market fit. Lack of Competencies Chemistry in the team members. |
| Response KDM-4 | Lack of Commitment of the founders. Business Model failure. Slow progression through TRL leading to Non-Acceptance by Market. |
| Response KDM-5 | Incoherent organization structure which leads to delay in implementation of strategies. Lack of working knowledge of the Sector/stakeholders Incorrect analysis of market demand. |
| Response KDM-6 | Lack of team's capability. Scalability issues. Not being able to find product acceptance. |
| Response KDM-7 | Lack of a product-market fit. Lack of innovative and scalable business models. Absence of relevant skillsets in the Founding Team (Eg. Technical Skills, BD, Finance, Operations, etc.) |
| Result/Insight: | Reasons for failure: 1. Lack of Key Resources-Human Resource, IPR, Infrastructure, Funding, 2. Market related issues-Non acceptance of product/services offered by Startup. 3. Incorrect Business Model. |
| Q2. | What in your opinion are the top 3 metrics based on which a startup can be considered successful? |
| Response KDM-1 | Financial success measured in terms of Returns of Investment (ROI). Intellectual/Psychological success of Team-sense of Achievement. Growth rate of the startup. Generally 15-20% of annual growth rate is desirable. |
| Response KDM-2 | Delivering the proposed Product without any time or cost overrun while meeting the quality requirements of users. Growth rate of turnover. Growth rate of Number of patents. |
| Response KDM-3 | 1. Market Valuation. 2. Novelty of the solution. 3. Returns on Investment (ROI). |
| Response KDM-4 | 1.Market & Customer Acceptance 2.Financial Viability/Sustainability 3. Achievement of Scale of operations. |
| Response | Sustained growth of subscribers/customers. Maintaining business and operational flow during economic hurdles. |

Table 2: Interview-Questions & Responses

| KDM-5 | 3. Achieving significant Percentage of Market share. |
|------------------|--|
| Response | 1.Consistent growth in revenue / product adoption by customers |
| KDM-6 | 2.Customers genuinely feel good about using the product |
| KDW-0 | 3.Company exited with multiplier growth to its investors |
| KDM-7 | 1. Long-term vision for the product/ service |
| | 2. Efficient capital management and resource planning |
| | 3. Creation of a successful community, including investors, includators, customers |
| Result/ Insight: | Metrics based on which startup can be considered successful: |
| | 1. Financial: ROI (Return On Investment), Market-Valuation, Market-Share, |
| | 2 Intellectual Property: Growth in Number of Patents |
| | 3. Psychological: Satisfied Customers, Sense of Achievement. |
| Q3. | What do you see as 3-5 critical factors that a Startup shall possess |
| | to enhance its chances of being successful? |
| Response | 1. Balanced team with Complementary skills in all Functional areas of |
| KDM-1 | venture management. |
| | 2. Appropriate Market sizing and Market acceptability. |
| Response | 1. Zeal to compete and succeed. |
| | 2. Possession of Intellectual Properly. |
| KDM-2 | 3. Availability of seed fund (may be through bootstrapping) |
| | 4.Design & Manufacturing Infrastructure. |
| Response | 1. Full Understanding of the market dynamics. |
| KDM-3 | 3. Responsiveness External Factors. |
| | 4. Team with Complementary skill set. |
| | 5. Unit Economics. |
| | 6. Operational sustenance. |
| Response | 1. Commitment of founder/Team. |
| KDM-4 | 2. Technology. |
| KDM-4 | 3. Finance. |
| | 5. Strength of Business |
| Response | 1.Leadership with experience and vision to guide and implement business |
| | strategies |
| KDM-5 | 2. Availability of working capital to enhance scale of operations. |
| | 3. Ability to analyze market trends to take decisions at the right time |
| Response | 1 Great founding team with right mix of talent and skills |
| | 2.Right set of advisors and mentors in the initial as well as later stage |
| KDM-6 | 3.Product acceptance by customers because of genuine problem being solved |
| Response KDM-7 | 1. Leadership with general and domain specific business knowledge |
| _ | 2. Agility in business model, incorporation of user feedback |
| | 3. Data-backed and rational financial projections |
| Posult/Insight | 4. Targeted marketing and promotional activities |
| icoury moight: | 1.Availability of Key Resources-Human Resource. IPR. Infrastructure. |
| | Funding, |
| | 2. Market related issues- Acceptance of product/services offered by Startup. |
| | 3. Incorporation of customer feedback for product improvement, |
| 04 | 4. Appropriate Business Model. |
| \24 . | chances of Success and its eliaibility for funding (proposed to be |
| | termed as 'Fundability' in this study) from the perspective of Investors? |

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| Response KDM-1 | Yes, the investors will be generally more willing to fund a startup whose chances of success is more based on their ROI, annual growth rate and passion of Team mates. |
|-------------------|---|
| Response KDM-2 | Yes, If the investors have a perception that the startup will be Successful then they will be more willing to fund. |
| Response KDM-3 | Yes, the investors will like to fund the startups when there is chance of success. |
| Response KDM-4 | Yes, generally Startups are Bootstrapped and then their go-to-market plan is facilitated by availability of finance. |
| Response KDM-5 | The success of a startup would be depending upon on number of factors such as core product idea, leadership, market conditions etc. Funding is a very important vehicle to increase scale; and, indeed, being a successful startup initially can attract additional investors for funding. However, funding is not always limited to a startup being in operation or being successful. Investors will be willing to fund startups to even develop products based on the core business idea. |
| Response KDM-6 | It is directly proportional as investors put their money expecting and predicting success based on critical evaluation. |
| KDM-7 | Yes, investors generally have a mix of objective and subjective metrics that consider the overall long-term capabilities of the startups, including Founding Team, Business Plan, current traction, financial projections, amongst others. These metrics are aimed to ensure a strong filtering mechanism to reach startups with a higher potential of success. |
| Result/Insight: | There exists a positive relationship between Startups' chances of Success and its Fundability (eligibility for funding) from the perspective of Investors. |
| Q5. | Startup-Investors have their own assessment metrics for deciding the fundability of startups, which is generally not transparent to the Startups. <i>Do you feel that a uniform and transparent Fundability index will be beneficial for Indian Startup-Ecosystem?</i> |
| Response KDM-1 | Yes, a Fundability Index developed using scientific methodology will be helpful. |
| Response KDM-2 | Yes, a uniform and transparent fundability Index developed using scientific methodology will be beneficial for the Indian Startup Ecosystem. |
| Response KDM-3 | Yes, If Decision matrix is known, it will be helpful. |
| Response KDM-4 | Yes, If Broad Parameters are known it will be helpful. |
| Response KDM-5 | While a standard Fundability– Index can benefit certain investors and can also help startups to assess their own capability for receiving funding, the use of such an index will rest upon the investor themselves. The index can definitely add value as an additional metric for investors to refer to while conducting their own assessment. |
| Response | Yes, definitely a set of rules can help a startup realize parameters to work upon for being more fundable for the investors it pitches the business plan to. |

| KDM-6 | |
|-------------------|---|
| KDM-7 | To an extent, yes. It is important for startups to understand the fundraising process and what investors are looking for, to refine their models accordingly and also to bring a level of transparency to the process. |
| | However, with any private investment, there will always be a level of subjectivity involved, based on the exact requirements of the Investor, which may be a combination of objective, subjective and intuitive factors. |
| Result/Insight: | Yes, a uniform and transparent Fundability index will be beneficial for Indian Startup-Ecosystem. |
| Q6. | What are 3-5 important metrics on which a mathematical- formalism for determining the fundability of a startup should be based upon? |
| Response KDM-1 | Return of Investment (ROI). Growth rate-in terms of turnover. Growth rate of in terms of No of customer. |
| Response KDM-2 | Indigenous Design capability. No. of Patents translated in to products. Market analysis. |
| Response | Growth in: |
| KDM-3 | 1. Employee size. 2. Market Valuation. 3. Product Portfolio. |
| Response | Various financial parameter like : |
| KDM-4 | Growth Rate. Profitability. Cost of product development. Cost of Customer Acquisition. |
| Response | The mathematical formalism can be based upon |
| KDM-5 | Total Number of Customers/Subscribers/contracts Turnover of the previous Financial Year. Number of Monthly/Daily Active Users. Retention rate of customers. |
| Response | 1.Rating of team |
| KDM-6 | 3.Rating on competition – existing small, medium, large competitors |
| Response | 1. Demonstrated Traction of the product/ service |
| KDM-7 | Creat History of the Founder(s) Previous Funding in the startup Amount and Usage of Potential Funding Profitability (if any) |
| Result/Insight: | Important metrics on which a mathematical-formalism for determining the fundability of a startup should be based upon: 1. ROI (Return on Investment). 2. Rate of Growth of Turnover. 3. Rate of Customer Acquisition. 4. Rate of Customer Retention. 5. Profitability. |

| Q7. | What in your opinion are the top 3 steps that should be taken to instill an entrepreneurial mindset in students at a young age so that they become resilient to failing? |
|-------------------|---|
| Response KDM-1 | Catch them Young. Give them first hand real life experience in running & managing business through Role Plays, Summer Internship & spending time with entrepreneurs both successful & failed. Providing access to encumbrance free risk capital. |
| Response KDM-2 | Organizing Innovation Contests on the Patterns of - Dare to Dream - more frequently and providing Intellectually challenging opportunities may lead to development of an entrepreneurial mindset amongst students. |
| Response KDM-3 | Culture of design thinking to be developed. Project Which help as building complementary teams. Establishing Tinkering labs/ Idea labs. Students should be Incent ivied for creativity. Problem solving skills need to be developed. Creation of New Role Models, & New Icons amongst students. Level playing field for all students should be there. Failure should be also celebrated. If only success is celebrated then people will be hesitant to take risks. Success & failure should be complementary. |
| Response KDM-4 | Entrepreneurial Capacity Building. Involvement in design thinking and problem solving projects. Sensitizing the student Community to differentiate between project- failure and Individual- failure. |
| Response KDM-5 | No Response, as this question was sent as a follow-up question to him. |
| Response KDM-6 | Introduce entrepreneurship as a compulsory course in school. |
| Response KDM-7 | Opportunities for hands-on experiential learning through Entrepreneurship related Programs aimed at solving real-life problems (E.g. Hackathons, Case Study Challenges, etc.) with support of Private Sector and Government Organisations. Promote Student-in-Residence Programs to learn and obtain CxO level mentoring, Inclusion of Entrepreneurship in School Curriculum as a specific module/ subject |
| Kesult/Insight: | Steps that should be taken to instill an entrepreneurial mindset in students at a young age so that they become resilient to failing: 1. Inclusion of Entrepreneurship in School Curriculum with various topics suggested by key-decision makers in the syllabus along with hands on experience. 2. Social Acceptance of Entrepreneurship as a career. |

4. Discussion

In this research paper, authors present the responses from Key-Decision-Makers (KDMs) of the Indian Startup Ecosystem, which provide insights to the critical factors for success of Indian Startups. Since the questionnaire which was provided to the KDMs did not have multiple choice questions, therefore it is not feasible to calculate the frequencies of the options exercised for the same question. In other words, statistical analysis of these responses is not feasible. However, the 770

responses of these KDMs provide several qualitative insights. Some of the insights gained are as under:

- **a.** Lack of resources in general and lack of funding in particular is one of the key reasons for failure of Startups.
- **b.** Most of the KDMs have provided tangible financial parameters (e.g. Growth rate of turnover) as the metrics based on which startups can be considered successful.
- **c.** Most of the KDMs have provided intangible parameters (e.g. incorporation of customer feedback for product development) as the factors which a Startup shall possess to enhance the chances of their success.
- **d.** All KDMs have agreed to the fact that there is a positive relation between Startup success and their chance (probability) of getting funded. Authors propose to call this probability of funding of startups as **Fundability of startups**.
- **e.** All KDMs (except one who has partly agreed) have agreed to the fact that –"a uniform and transparent fundability index will be beneficial for Indian Startup Ecosystem".
- **f.** Respondents have suggested the critical factors based on which a mathematical-formalism for measuring of fundability can be developed.
- **g.** Majority of the KDMs have suggested tangible & measurable parameters (e.g. Return of investment, Growth rate in terms of turnover etc.). This also validates the fact that there is a lack of funding at early stages of Startups as most of the metrics which are taken into consideration for determining the fundability of a Startup is generally not available in the early stages of Startup-Life Cycle. This also validates the relevance of this research work.
- **h.** KDMs have suggested the critical factors based on which a mathematical-formalism for measuring of fundability can be developed.

From the above key-insights (a-h), it can be safely concluded that the views of the KDMs of Indian-Startup-Ecosystem qualitatively validates the need of this study. These insights can form the basis of questionnaire design for data collection for further research work as well as for corroboration of results based on quantitative analysis of data(if data already collected). Based on the above discussion, it is recommended that the interested researchers may carry out further research for developing the fundability-index for startups.

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