Critical Success Factors for Startups : A Study on Mumbai-Pune Region, Maharashtra, India

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Abstract

India featuring in the top five largest economies in the world relies heavily on the success of startup business enterprises for continuous economic growth and employment generation. Government of India through Startup India Initiative since 2015 has increased its focus on creating an inclusive environment for the growth and success of Startup Business Enterprises. This has shown positive outcome in terms of number of new startups and the amount of investment flown to this crucial sector of the economy. The present study was an attempt to understand the key success factors for startup in India through a study on selected startups in Mumbai-Pune region of western India, the traditional manufacturing and financial capital of India. Our analysis using the various ranking methods and Analytical Hierarchy Process helped us to identify entrepreneurship as the major success factor for new startups in India. This has larger policy implication for the promotion of entrepreneurship in this crucial sector.

Keywords : **Entrepreneurship, India, startups, success factors**

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Entrepreneurial instincts of innovators, appropriate environment across economies, promotion agenda undertaken by various governments has enhanced the significance of venture startups in the last decade. Global trends suggest that many governments have promoted small startups as a means to boost economic growth and enhance the employment opportunities emerging through the startup ventures. Startups stand as one of the major and crucial economic growth factor for any country. India featuring in the top five largest economies in the world relies heavily on the success of its startup business enterprises for continuous economic growth and employment generation. Government of through Startup India Initiative since 2015 has increased its focus on creating an inclusive environment for the growth and success of Startup Business Enterprises. This has shown positive outcome in terms of number of new startups and the amount of investment flown to this crucial sector of the economy.

Startup is generally defined as a new company with new idea based on knowledge industry (Kim, Kim, & Jeon, 2018). Startup companies are formed on brilliant ideas which are born as new companies that struggle for existence and later grow to succeed (Salamzadeh & Kesim, 2015). Blank (2010) defined startup as a temporary organization created for repeatable and scalable model of business. Ries (2012) defined startup as an organization created to launch new products or services in uncertainty.

According to *Startup India initiative 2015* of Ministry of Commerce and Industry of Government of India, an entity is considered a Startup if it is incorporated as a private limited company (as defined in the Companies Act 2013) or registered as a partnership firm (under section 59 of the Partnership Act 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2008) in India. The firm will remain as a startup up to ten years from the

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date of its incorporation/registration, if its turnover for any of the financial year since incorporation/registration has not exceeded ₹ 100 crores and if it is working towards innovation, development or improvement of products or processes or services, or if it is scalable business model with a high potential employment generation or wealth creation. Provided that any such entity formed by splitting up or reconstruction of a business already in existence shall not be considered a startup.

A major characteristic feature of startups across the country is the low success rates and a high degree of failures of these entities in the first five years of operation. There are many reasons startups fail in India (Sharma, Raj, & Gandhi, 2018). Most studies indicate that young startups need guidance, direction, and exposure mainly formal mentorship more than financial support .While funding is an important aspect, pro-active government policies and private players have to step-in to create a more sustainable environment for start-ups. (Kanda & Handa, 2018). Entrepreneurs do not have a safety net behind them which makes earning money a priority. It is generally felt that while people have amazing ideas, they lack the skills of marketing their ideas to investors (Sharma, Raj, & Gandhi, 2018). The motivation to be in startups has been due to personal traits of an individual, his need for achievement (Brem, 2008 ; Nandram & Boemans, 2001 ; Rauch, 2000) willingness to take risk (Brem, 2008 ; De Mel, McKenzie, Woodruff, 2009 ; Rauch, 2000) and optimism (Brem, 2008 ; Nandram & Boemans, 2001 ; Rauch, 2000).

As per NASSCOMM (2019), India is ranked the third biggest startup hub in the world. Governments of India and Maharashtra have implemented various policy initiatives for the promotion of startups. Mumbai-Pune region, historically the industrial and manufacturing capital of India is lagging behind the technology capital Bangalore and Delhi-NCR in terms of startup penetration. Bangalore has 23% share of startups in India followed by Delhi-NCR with 22%, and Mumbai-Pune region 13%. This has to do with the various eco-system factors that differentiate the emergence of startups in the IT dominated cities than the traditional industrial locations like Mumbai-Pune region. There is a need to study various critical success factors responsible for the development of startup culture for the emergence of new startups in this location. Government of Maharashtra in its *Startup Policy 2018* targeted to develop 10,000 startups by attracting ₹ 500 crores of angel and seed investment in the state during the period of 2013 – 2018 in order to create five lakh direct and indirect job opportunities within this sector. The broad objective of this study was to understand the major success factors for startup in the state of Maharashtra, especially Mumbai-Pune region.

Rest of the paper is arranged in four sections. The first section gives a brief review of literature on the success factors for startups across the globe. This review will help us develop the analytical framework of the study, as discussed in the second section. The key results of the study are discussed in the third section, while the fourth section concludes the study with policy suggestions for the future success of startups in India.

Success Factors for Startups : From Literature

A number of economic perspectives tend to posit that entrepreneurial intention and actual entrepreneurial behaviour are motivated by pull or push factors. These motivating factors can also facilitate entrepreneurial success or failure. One such perspective is the Equilibrium Model of the Labour Market, which views entrepreneurship as an employment alternative (Parker, 2004 ; Parker, 2005). The equilibrium model suggests three paths to entrepreneurship. Foremost is the idea that highly talented individuals spend most of their time establishing enterprises, while the less-talented seek jobs. Second is the proposition that individuals can either choose self-employment, which carries high risks, or paid employment, which is less risky. The last proposition in the equilibrium model is the assumption that highly talented entrepreneurs specialize in creating enterprises, while the less-talented entrepreneurs specialize in managing businesses created by others. A related school of thought is the Resource Distribution Theory (Banerjee & Newman, 1993), which assumes that the wealthy choose entrepreneurship, while those with less income seek salaried positions (Gražina, Remeikienė, & Dumčiuvienė, 2010). This model has been supported by the findings of a number of studies, including Disney and Gathergood (2009), Dunn and Holtz-Eakin (2000), Mesnard and Ravallion (2006), and Poschke (2013). However, Mesnard and Ravallion (2006) cautioned that wealth redistribution would only have a minor effect on entrepreneurship.

While these two models describe those who are likely to enter entrepreneurship, they do not explain who is likely to succeed in an entrepreneurial venture. The Dynamic Selection Model attempts to address the question by describing the dynamics of competing and surviving in the market (Parker, 2004). According to this model, individuals have limited knowledge about their entrepreneurial capabilities and learn more by trying. Those with inadequate entrepreneurial abilities quit immediately ; however, the longer an individual remains self-employed, the greater his or her chance of continuing on that path (Tervo & Haapanen, 2010). This model does not help explain why some entrepreneurs succeed and others fail, given that persistence is not synonymous with success ; however, it does lead to the proposition that the psychological resources required for entrepreneurial success can be acquired and/or strengthened through continued persistence with entrepreneurial activities.

Beyond the economic factors, the entrepreneurial ability is influenced by individual characteristics and differences. Psychological attributes in particular play a major role in entrepreneurial intentions and behaviour. There are theoretical perspectives related to the role of psychological resources in the entrepreneurial process. The first perspective is Lent, Brown and Hackett's (1994) Social-Cognitive Career Theory (SCCT), which explains vocational choices. This theory differs from Holland's (1997) notion of vocational personalities; it posits that the interaction between an individual's cognitive capabilities and his/her environment determines both the individual's vocational interests and his/her likelihood of achieving success (Brown, 2011). The focal idea is that amidst environmental factors (Lent, 2005), individuals have the capacity to direct their own careers. Therefore, a person's decision to become an entrepreneur, persist in the endeavour, and consequently succeed is a function of both cognitive processes and environmental factors. The theory further explains success in entrepreneurship by claiming that performance is influenced by self-efficacy and outcome expectations, which are direct or indirect results of general cognitive ability and specific skill sets (Brown, 2011). This explanation suggests that a number of psychological capital dimensions play an important role in entrepreneurial success.

Ajzen's (1991) Planned Behaviour Theory is increasingly gaining popularity in the study of entrepreneurial intentions (Krueger, Reilly, & Carsrud, 2000 ; Lin, Carsrud, Jagoda, & Shen, 2013). The theory attributes behavioural intentions to attitudes, social norms, and perceived control (Obschonka, Silbereisen, & Schmitt-Rodermund, 2010 ; Schlaegel & Koenig, 2014 ; Zhang, Duysters, & Cloodt, 2014). However, intentions strongly predict entrepreneurial behaviour (Kautonen, Gelderen, & Fink, 2015 ; Krueger et al., 2000). In the realm of this theoretical perspective, it could be argued that individuals make deliberate efforts to plan their entrepreneurial entry and exit. Indeed, Krueger et. al. (2000) showed that much of entrepreneurial behaviour is intentionally planned. Consequently, this theory is not only the most widely applied, it is also widely supported by empirical studies, such as Schlaegel and Koenig (2014) meta-analysis of determinants of entrepreneurial intentions. Several empirical studies show that the three factors emphasized in Planned Behaviour Theory are significant predictors of entrepreneurial intentions (Gelderen, Brand, Praag, Bowedes, Poutsma, & Gils, 2008 ; Kautonen, Gelderen, & Fink, 2013 ; Tsai, Chang, & Peng, 2014 ; Zhang, Duysters, & Cloodt, 2014). The current study, however, focuses on success in entrepreneurship, and the theory posits that the entrepreneurial process is indirectly affected by personal and situational factors via attitudes and behavioural motivation (Krueger et al., 2000). Clearly, dimensions of psychological capital can stimulate behaviours among entrepreneurs that can promote success or cause failure. Entrepreneurial capital is based on the aggregate capital that the entrepreneur possesses (Firkin, 2003). This is inclusive of psychological resources, which together represent psychological capital. Psychological capital involves the entrepreneur's conviction that he/she has the ability to start a venture and the capacity to recognize and utilize business opportunities (Ramos-Rodríguez, Medina-Garrido, Lorenzo-Gomez, & Ruiz-Navarro, 2010). This form of capital comprises confidence (self-efficacy), optimism, hope and resilience (Luthans, Youssef, & Avolio, 2007), and trust (Page & Donohue, 2004). This study explores the role that each of these characteristics plays in business success.

Analytical Framework and Research Methods

The study is based on a primary survey of 42 startups based in Mumbai-Pune region. The field survey was undertaken during the period of January-February 2020.

A. Research Variables and Framework

After thorough review of literature, we adapted the framework of Kim, Kim, and Jeon (2018) for our detailed analysis of the sample responses. We identified four success factors, namely, 'entrepreneurship', 'innovation', 'technology', and 'economic' factors. Each factor contained five attributes. The framework comprised 20 success attributes.

Table 1. Success Factor Matrix for Startups

Entrepreneurship	Innovation	Technology	Economics
Competency	Entrepreneurial Motivation	Creative Technology Utilisation	Continuous Investment
Adventure Tendency	Progressive Thinking	Technical Knowledge and Craftsmanship	Venture Capital Utilisation
Desire to Accomplish	Self-Development	Intellectual Property Rights retention	Raising Venture Fund
Goal Orientation	Idea Commercialisation	Market Oriented Technology	Raising available Fund
Risk Sensitivity	Market Oriented Opportunity Switch	High-technology Globalisation	Financial Resource Retention

B. Research Method

Analytical Hierarchy Process (AHP) has been used in the current research which is a widely used social science method for research (Ngai, 2003). AHP is mathematical based multi- objective decision making tool that addresses the problem of decision making with multi-criteria characteristics (Saaty, 1990 ; Udo, 2000). Originally devised by Saaty (1980), AHP is a framework for solving multi-criteria problem based on relative priority given to each criteria's role in the objectives stated AHP is a benefit measurement (scoring) model that relies on subjective managerial inputs on multiple criteria. These inputs are converted into scores that are used to evaluate each of the possible alternatives. The AHP is a powerful management science tool that has proven useful in structuring complex multi person, multi criterion decisions in business and economics. The evaluation of critical success factors has many criteria and weights for every business success factor. The priority and weights for each business factor would be important to develop and evaluate businesses. AHP has been used here for this reason.

Results and Discussion

A. Personal Attributes of Entrepreneurs

Data was collected from 42 respondents of which 95% were males and only 5% were females. Among the respondents, 54% had prior entrepreneurial experience, while 46% were the ones who started entrepreneurial venture for the first time. Their educational profile indicates that majority of the startup entrepreneurs were highly educated. 51% of the respondents were graduates, 44% were post graduates, and the rest had secondary education. Majority of the entrepreneurs were in the younger age group, 64% below 30 years of age and 29% were in their 40s. With respect to previous industrial experience, 77% had some experience before venturing into startups. 80% of the entrepreneurs held patents for the product/ service they were providing in the market. The annual turnover of the firms as given in Figure 1 clearly shows that a major proportion (47%) were below one lakh, another 27.5% had a turnover between ₹ 10 – 30 lakh, while 17.5% had an annual turnover above ₹ 50 lakh.

B. Rank Analysis

As a prelude to the detailed analysis using the Analytical Hierarchy Process (AHP), we had done simple rank analysis of the perception of entrepreneurs on key success factors. For the rank analysis, we computed the frequencies of the responses and their ranking. We took equal weightage for all sub parameters and calculated the ranking of the four main

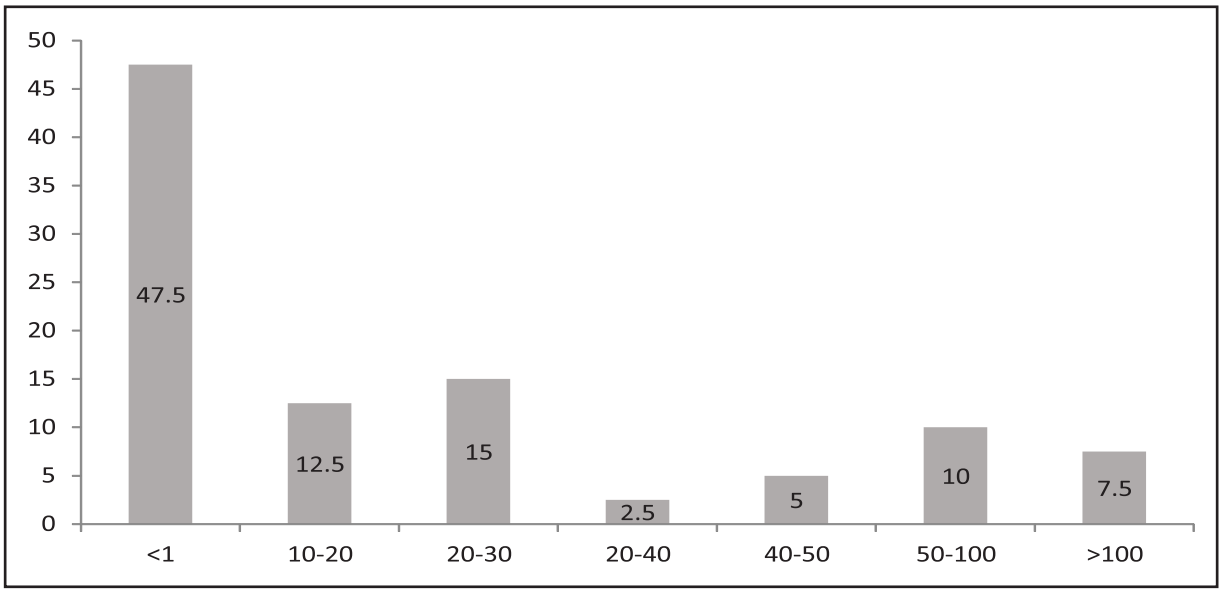

Figure 1. Distribution of Firms Based on Annual Turnover (₹ Lakhs)

attributes of success for the startups. The results of the rank analysis show that entrepreneurship is the key success factor for startups followed by innovation, technology, and economic factors.

Another method of ranking analysis, Henry Garret ranking method was also used for analysis in the present study. This method was used to rank the preferences indicated by different respondents on different factors. This analysis was used to verify the results of the previous analysis.

To calculate the Garret value, percentage position was calculated.

$\%\ \text{Position} = 100(R_{ij} - 0.5)/N_j$

R_{ij} = Rank given for the i^{th} variable by the j^{th} respondents

N_j = Number of variable ranked by j^{th} respondents

Here, $R_{ij} = 1,2,3,4$ and $N_j = 4$

From these, % Position values were calculated. Based on the % Positions, Garret Values were taken from the Garret Table. The individual rank frequencies were multiplied by the Garret Values. A total was computed over each of the factors.

Then the average score of each of the factors was computed. Based on the average scores, rank was assigned. The results are given in Figure 2. Both the methods of Ranking yielded the same results. Entrepreneurship ranks first with 34.56% weightage followed by Innovation with 28.23%, economic attributes with 19.79%, and technology with 17.41 %.

C. Results of Analytical Hierarchy Process

As explained in the previous section, to prioritize success factors, it is important to club the various factors under four main categories : (i) Entrepreneurship, (ii) Innovation, (iii) Technology, and (iv) Economics. Using the AHP method, the weights for the four factors were calculated. There has been 55.8% weightage given to entrepreneurship in terms of priorities, 26.3% to innovation, 12.2% to Economics, and 5.7% to technology related attributes. In the second stage of analysis, local and global weights are assigned for each parameter. Detailed results are given in Table 2.

The local weights help us prioritize among the sub-criteria of each factor. The global weights (product of local weights and weights of respective areas) help us evaluate and compare among all the sub-criteria. For the factor

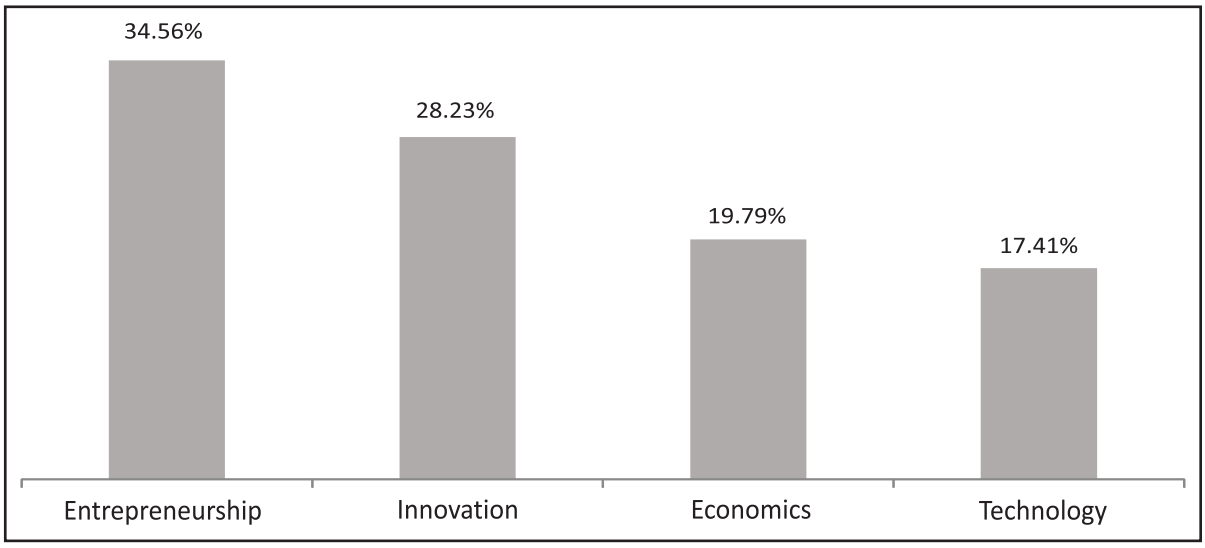

Figure 2. Ranking of Success Factor

Entrepreneurship, Entrepreneur's Competency (with a weightage of 0.3409) has a higher priority than the sub-criteria of Risk Sensitivity (0.1136) which has a local priority of 2. The local priorities clearly state that Entrepreneur's Competency, Desire to Accomplish and Adventure Tendency play a more critical role than Goal Orientation and Risk Sensitivity. For innovation, entrepreneurial motivation is the most important success factor followed by idea commercialization. For technology, high tech globalization is the most significant factor followed by Technological Knowledge and Craftsmanship. For economics, venture capital utilization, Raising Venture Funding and Financial Resources Retention are more important than Continuous Investment and Raising Available Funds. However, if we look at the global level, Progressive Thinking under the factor Innovation, has a global priority of 2. In this case, the global priority of Risk Sensitivity under the factor of Entrepreneurship has a global priority of 3. This means for the success of start-ups; Progressive Thinking is of higher priority than Risk Sensitivity.

Among all the sub factors, the five most important success factors of start-ups are :

(i) Entrepreneur's Competency

(ii) Adventure Tendency

(iii) Desire to Accomplish

(iv) Entrepreneurial Motivation

(v) Progressive Thinking

The first three are sub-factors of Entrepreneurship and the remaining two are sub-factors of Innovation. The prioritization of the sub-factors completely matches with the rankings (Entrepreneurship-1 & Innovation-2) given by the respondents.

The study helps start-ups recognize the most important variables that startups consider in their success as Entrepreneurship, Innovation, Technology, and Economic factors as per the Analytical Hierarchy Process. Technology and Economic factors have interchanged their ranking in this process of ranking compared to the results in the previous section of simple ranking.

Implications

This research will provide insights to early stage startups on factors they should focus on the startup journey and take benefit of findings in their own startup journey and avoid mistakes stated in the paper.

Table 2. Results of Analytical Hierarchy Process

Evaluation Areas	Weights of Areas	Evaluation Factors	Weights of Evaluation Factors			
	Local		Local	Priority	Global	Priority
Entrepreneurship	0.56	Entrepreneurs Competency	0.34	1	0.19	1
		Adventure Tendency	0.34	1	0.19	1
		Desire to accomplish	0.34	1	0.19	1
		Goal Oriented	0.11	2	0.06	3
		Risk Sensitivity	0.11	2	0.06	3
Innovation	0.26	Entrepreneur motivation	0.45	1	0.12	2
		Progressive Thinking	0.45	1	0.12	2
		Self-Development	0.08	3	0.02	7
		Idea Commercialization	0.19	2	0.05	4
		Market Oriented Opportunity Switch	0.08	3	0.02	7
Technology	0.06	Creative Tech Utilization	0.14	3	0.01	10
		Tech. Knowledge & Craftsmanship	0.16	2	0.01	8
		Intellectual Property Rights Retention	0.14	3	0.01	10
		Market Oriented Tech	0.14	3	0.01	10
		High Tech Globalization	0.65	1	0.04	6
Economics	0.12	Continuous Investment	0.07	2	0.01	9
		Venture Capital Utilization	0.37	1	0.04	5
		Raising Venture Funding	0.37	1	0.04	5
		Raising Available Funds	0.07	2	0.01	9
		Financial Resource Retention	0.37	1	0.04	5

Limitations

The study is limited to Mumbai-Pune region and the startups considered in the study are all early stage startups.

Conclusion

In this paper, we tried to understand the key success factors for startups in India by taking a study of selected startups in Mumbai-Pune region. Our results indicate that entrepreneurship factors like competency, adventure tendency, goal oriented desire to accomplish, and risk sensitivity are the major success factors for startups. The government policy of startup India has helped a breakthrough in this sector and the sustainability of this depends on how effectively such policies are pursued for encouraging entrepreneurship in this sector in the long run.

Scope of Further Research

This paper also provides further research opportunities for study on critical success factors for startups in other geographic locations and make a comparison with Pune/Mumbai region.

Authors' Contribution

Dr. Apoorva Palkar proposed to conduct the study on critical success factors for startups and worked to conceptualize the paper through a rigorous review of literature from prominent journals nationally and internationally to create

the framework for the paper. Dr. Apoorva Palkar & Dr. K.S. Hari worked jointly and collected the data for this study, interpreted the information, and wrote the paper jointly.

Conflict of Interest

The authors certify that they have no affiliation with or no involvement with any financial interest in the subject matter discussed in the paper.

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References

Alice, M. & Ravallion, M. (2001). *Wealth distribution and self-employment in a developing economy.* C.E.P.R. Discussion Papers 3026. https://ideas.repec.org/p/cpr/ceprdp/3026.html

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Banerjee, A. V., & Newman, A. F. (1993). Occupational choice and the process of development. *Journal of Political Economy, 101*(2), 274 – 298. http://www.jstor.org/stable/2138820

Blank, S. (2010). *Why startups are agile and opportunistic – pivoting the business model.* Steve Blank.

Brem, A. (2008). *The boundaries of innovation and entrepreneurship.* Wiesbaden, Erlangen Nürnberg : Springer.

Brown, R. (2011). The determinants of high growth entrepreneurship in the Scottish food and drink cluster. In G. Alsos, S. Carter, E. Ljunggren, & F. Welter (Eds.). *The handbook of research on entrepreneurship in agriculture and rural development.* Edward Elgar : Cheltenham. https://doi.org/10.4337/9780857933249

De Mel, S., McKenzie, D. J., & Woodruff, C. (2009). Measuring microenterprise profits : Must we ask how the sausage is made? *Journal of Development Economics, 88*(1), 19–31. https://doi.org/10.1016/j.jdeveco.2008.01.007

Disney, R. & Gathergood, J. (2009). Housing wealth, liquidity constraints and self-employment. *Labour Economics, 16*(1), 79 – 88. https://doi.org/10.1016/j.labeco.2008.05.002

Dunn, Thomas & Douglas Holtz-Eakin. (2000). Financial capital, human capital, and the transition to self-employment, evidence from intergenerational links. *Journal of Labor Economics, 18*(2), 282–305. https://doi.org/10.1086/209959

Firkin, P. (2003). *Entrepreneurial capital: A resource-based conceptualization of the entrepreneurial process* (Working Paper No. 7). Labour Market Dynamics Research Programme, Massey University, Auckland. https://guides.library.sc.edu/citation/apa

Gelderen, M., Brand, M., Praag, M., Bowedes, W., Poutsma, E., Gils, A. (2008). Explaining entrepreneurial intentions by means of the theory of planned behaviour. *Career Development International, 13*(6), 538 – 559. https://doi.org/10.1108/13620430810901688

Gražina, S., Remeikienė, R., & Dumčiuvienė, D. (2010). Concept of self employment. *Economics and Management, 15,* 262–274.

Holland, J. L. (1997). Making vocational choices : A theory of vocational personalities and work environments. *Open Journal of Social Sciences, 5*(2), 3rd Ed. Psychological Assessment Resources, Odessa.

Kanda, R. & Handa, H. (2018). The impact of service ethics on organisational competitiveness in India – A primary approach to the startup and emerging service enterprises. *Journal of Business Ethics, 7*(1), 13 – 22. http://dx.doi.org/10.26643/think-india.v21i2.7763

Kautonen, T., Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice, 39*(3), 655 – 674. http://dx.doi.org/10.1111/etap.12056

Kim, B., Kim, H., & Jeon, Y. (2018). Critical success factors of a design startup business. *Sustainability, 10,* 2981.

Krueger, N. F. J. R., Reilly, M. D., Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing, 15*(5–6), 411 – 432. https://doi.org/10.1016/S0883-9026(98)00033-0

Lent, R. W. (2005). *A social cognitive view of career development and counseling.* In S. D. Brown & R. W. Lent (Eds.). Career development and counseling: Putting theory and research to work, pp. 101–127. Hoboken, NJ : John Wiley.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*(1), 79–122. https://doi.org/10.1006/jvbe.1994.1027

Lin, X., Carsrud, A., Jagoda, K., & Shen, W. (2013). Determinants of entrepreneurial intentions: Applying western model of the Sri Lanka context. *Journal of Enterprising Culture, 21*(2), 153–174. https://doi.org/10.1142/S0218495813500076

Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge.* Oxford, UK: Oxford University Press. 10.1093/acprof:oso/9780195187526.001.0001

Mesnard, A. & Ravallion, M. (2006). The wealth effect on new business startups in a developing economy. *Economica, 73*(291), 367–392.

Nandram, S. S., & Boemans, M. (2001). *De beste ondernemer : Condities voor ondernemerssucces.* Breukelen: Universiteit Nyenrode.

NASSCOM. (2019). *Indian tech startup eco system : Leading techs in 20s.* New Delhi.

Ngai, E. W. T. (2003). Selection of websites for online advertising using AHP. *Information and Management, 40,* 233-242. https://doi.org/10.1145/2554850.2555067

Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (2010). Entrepreneurial intention as developmental outcome. *Journal of Vocational Behavior, 77,* 63 – 72. https://doi.org/10.1016/J.JVB.2010.02.008

Page, L. F. & Donohue, R. (2004). *Positive psychological capital : A preliminary exploration of the construct.* Working Paper Series, Department of Management. October. 1–10.

Parker, S. C. (2004). *The economics of self-employment and entrepreneurship.* Cambridge University Press : Cambridge. https://doi.org/10.1017/CBO9780511493430

Parker, S. C. (2005). The economics of entrepreneurship : What we know and what we don't. *Foundations and Trends in Entrepreneurship, 1*(1), 1 – 54. http://dx.doi.org/10.1561/0300000001

Poschke. (2013). Who becomes an entrepreneur? Labor market prospects and occupational choice. *Journal of Economic Dynamics and Control, 37*(3), 693 – 710. https://doi.org/10.1016/j.jedc.2012.11.003

Ramos-Rodríguez, A. R., Medina-Garrido, J. A., Lorenzo-Gomez, J. D., & Ruiz-Navarro, J. (2010). What you know or who you know? The role of intellectual and social capital in opportunity recognition. *International Small Business Journal, 28*(6), 566 – 582. https://doi.org/10.1177%2F0266242610369753

Rauch, A. (2000). *Success Factors of Small and Medium Sized Enterprises* (PhD Thesis). Universiteit van Amsterdam, Amsterdam.

Rauch, A. J. (2001). *Success factors of small & medium sized enterprises* (PhD Thesis). University of Amsterdam. https://dare.uva.nl/search?identifier=3cf9fb9e-fc80-4b79-b56e-337640f8752c

Ries, E. (2012). The lean startup : How today's entrepreneurs use continuous innovation to create radically successful businesses. *Journal of Product Innovation Management, 29*(3), 508 – 509. NY : Crown Publishing Group. https://doi.org/10.1111/j.1540-5885.2012.00920_2.x

Saaty, T.L. (1980). *The Analytical Hierarchy Process.* McGraw- Hill, New York, NY.

Saaty, T.L., 1990). How to make a decision : The Analytic Hierarchy Process. *European Journal of Operational Research, 48*(1), 9 – 26. https://doi.org/10.1016/0377-2217(90)90057-I

Salamzadeh, A. & Kesim, H.K. (2015). Startup companies : Life cycle and challenges. *The 4th International Conference on Employment, Education and Entrepreneurship.* Belgrade, Serbia.

Schlaegel, C. and Koenig, M. (2014). Determinants of entrepreneurial intent : A meta-analytic test and integration of competing models. *Entrepreneurship Theory and Practice, 38*(2), 291–332. https://doi.org/10.1111/etap.12087

Sharma, S., Raj, M., & Gandhi, T. (2018). Challenges and issues faced by startup companies in India [Conference Presentation]. *16th AIMS International Conference on Management,* (pp. 109 – 113).

Tervo, H., & Haapanen, M. (2010). The nature of self-employment : How does gender matter ? *International Journal of Entrepreneurship and Small Business, 9*(3), 349 – 371. https://doi.org/10.1504/IJESB.2010.031926

Tsai, K., Chang, H., & Peng, C. (2016). Extending the link between entrepreneurial self-efficacy and intention : A moderated mediation model. *International Entrepreneurship and Management Journal, 10,* 623 – 641. https://doi.org/10.1007/s11365-014-0351-2

Udo, G. G. (2000). Using Analytic Hierarchy process to analyze the information technology outsourcing decision. *Indian Management and Data Systems, 100*(9), 421–429. https://doi.org/10.1108/02635570010358348

Zhang, Y., Duysters, G., & Cloodt, M. (2014). The role of entrepreneurship education as a predictor of university students' entrepreneurial intention. *International Entrepreneurial and Management Journal, 10,* 623–641. https://doi.org/10.1007/s11365-012-0246-z

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