Delivering a Systematic Framework for the Selection and Evaluation of Startups

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Abstract. The literature shows that the failure rate of startups is around 90%. Therefore, it is crucial for investors and financial advisors to be able to spot the 10% which eventually will generate higher return rates and bring in greater revenues. The absence of a general conceptual framework which could assist large corporations and investors in the selection and evaluation of startups is quite visible in the literature. In this research, critical success factors for strategic alliance making between startups and large sized companies are identified and possible selection methods are discussed. Second, based on our findings a conceptual framework is presented for the selection of successful startups. Semi-structured interviews are conducted at a large scale financial tech company to evaluate our proposed framework. The results of our expert interviews indicate that all the managers who were involved in the selection process of startups agree on the fact that the team experience and the startup's position within its network are highly related to the success of the startup in the future. Furthermore, characteristics of the lead entrepreneur, competitive advantage of the firm's products and the valuable resources the startup has are also ranked among the criteria which managers look into and have strong influence on their decision making.

Keywords: Strategic alliance · Startups · Digital services · Value co-creation · Expert interviews · Success factors · Service innovation · Exploratory case study

1 Introduction

The literature suggests that the failure rate of the startups is around 90%. Although there may be several reasons behind this rate, including but not limited to lack of financial funds or simply bad management, it is crucial for investors and financial advisors to be able to spot the 10% which eventually generates higher return rates and bring in greater revenues (Krishna et al. 2016). Being able to spot the successful startups is even more important for larger corporations who are willing to take on a partnership with them. This is owing to the fact that when startups enter in to an alliance with corporations, they tend to stay with their partners (due to high switching costs) and their growth eventually contribute to the success of their larger counterparts. Forming strategic alliances has been proven to be very beneficial for the startups too.

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These strategic alliances with large enterprises may help startups with having strong grounds to build their enterprise on at the very beginning. Having a secure partnership with a large enterprise may also help startups in reducing the impact of a project failure at the early stages (Comi and Eppler 2009, Kinyenje 2016, Baum et al. 2004, Barney 1991, Das and Teng 2000).

Investors are highly interested in determining the common features of the successful startups which are able to bring an innovation into a marketplace. How these startups can be spotted at their early stages is also an important topic concerning large corporations seeking a partnership with them. In order to answer this question, Galloway (2017) suggests that it is essential for a company to create a product which disrupts the market they are operating in. Taking the example of the most successful companies today, he indicates that their common feature was to bring an innovation or operate differently from the incumbent firms which would simply create a disruption. Startups such as Uber and Airbnb also stand as good examples within this context. Uber challenges other means of transport by offering a simpler and cheaper version of transport. Additionally, Airbnb offers a cheaper accommodation where customers can customize their stay according to their preferences and with the help of technology (Galloway 2017). The question then arises as: Is creating a disruptive technology the only common feature of the successful startups?

As there are various literature around the business models that startups have followed to grow as big as they are now, there is a gap in the literature on which criteria can large businesses select the right startups. Therefore, in this research, we aim to address the following research question: What considerations should the large corporations look into for assessing whether or not a startup will be successful in the future? Within the context of value co-creation, big corporations such as Google and Salesforce have devised tools to help firms in selecting which companies they should invest in or form a strategic alliance with. Google's market finder digital services enable large corporations to narrow down their search for a strategic partner. Google's market finder tool sends its clients possible leads and partners that they might be interested in forming a strategic alliance with.

Currently the firms decide on which startups to partner with according to various criteria including but not limited to the startup's growth rate and the initial funding that they may have received. However, the initial comments of the employees of a large enterprise have indicated that, there should be a conclusive list of criteria which would help with the selection of startups as partners. This list would also be beneficial for any size of corporation a strategic alliance will be formed with. Therefore, the contribution of this paper is twofold. First, critical success factors for making strategic alliance between startups and large sized companies will be identified and possible selection methods will be discussed. Second, based on our findings a framework will be presented for the selection of successful startups. In order to answer our research question, semi-structured interviews are conducted at a large scale financial tech company.

The research presented in this study has the following implications. First, the outcome of this research is beneficial for large corporations as it aims to find a roadmap for corporations when they are taking on new partnerships. Secondly, it investigates the importance of the identified criteria within our proposed framework from the point of view of managers who are involved in the process of startup selections. The rest of this paper is organized as follow: In Sect. 2 the relevant literature review on the topic of strategic alliance is presented. In Sect. 3, the proposed framework and an extensive explanation of the research design are delivered. The results of our analysis are presented in Sect. 4. In Sect. 5 we provide the conclusion and discussion over our findings.

2 Literature Review

2.1 Selection Criteria for Selecting Startups

As with the increase of technological focus of the companies and the innovation projects the firms want to take a part in increases, more alliances are being formed with the startups (Comi and Eppler 2009). Startups make it easier for firms to manage their innovation projects and enter in to new markets where technological capacities are a must. Thus, interest in forming alliances with startups have increased recently (Comi and Eppler 2009). According to (Duchesneau and Gartner 1990) there are three characteristics that differentiate a successful startup from the others. Firstly, the characteristics of the lead entrepreneur is an important indicator of their future success. Secondly, the processes that are taken up during the initial growing stages of the startup are highly important. Lastly, the strategic decisions the startups make once they start to grow and become scale ups are also important factors that affect their future success and growth rate. Another factor that differentiates successful startups from other ventures are the long term plans and goals of the entrepreneurs and their vision for the future growth of the startups (Gelderen et al. 2005). Gelderen, additionally emphasizes that the social connections of the lead entrepreneur and their psychological state might also influence their entrepreneurship skills. In the following we discuss how the different entities such as large corporations, venture capitals, SMB's and investors assess the future success of startups.

According to (Comi and Eppler 2009), before entering into a partnership with a startup, large corporations find it important to analyze the intellectual capability of a startup as an indicator of their future success as a partner. This is mainly because it has been found in the literature that existing resources of a venture is an important indication of a suitability of a partner in a strategic alliance. Furthermore, the large corporations find the connections of the founding team of the startup and the financial investments they have acquired at their growth rate as important criteria when selecting them as partners.

In a different research focusing on the selection criteria of the venture capitalists on the selection of startups, it has been found that venture capitalists focus on the early partnerships that the startup might have (Baum and Silverman 2004). The authors show that, venture capitalists take in to consideration any patents that these startups might have acquired as they are an indicator of the technical abilities of the startups. They may specifically look in to the capabilities of the founding team, the intellectual capability of a startup and also the strategic alliances they have. The results of another study indicated that the venture capitalists look into the investment activities, due diligence activities and information that the startups have (Zinecker and Bolf 2015). In a relevant literature around the selection criteria of venture capitalists on startups, it was found out that asking cognitive questions at the selection process might help acquiring more information on startups. This might eventually lead to better understanding of the success rate of startups in the future (Csaszar et al. 2006). Asking cognitive questions to the founders of startups is also essential in case there is not enough information on the startups and if the startups have not provided enough data when approaching the investors and other entities for funding options (Csaszar et al. 2006).

Venture capitalists suggest that it is not possible to predict the success rate of a startup correctly as there are unknown variables that cannot be taken into account. However, analyzing a startup with the aid of asking questions might eliminate risks and help the investors have better understanding of the future success rates of the startup. The authors suggested that these questions should be relevant to the fields of strategy, teams and finance.

In addition to the above criteria, SMBs find the trust and the personal relationships between the SMBs and the startups as one of the most important criteria on the selection process of startups that they enter in to an alliance with (Hoffmann and Schlosser 2001). This is mainly because the trust in the capabilities of the lead entrepreneur and the founding team are important credentials in determining the future success of the startups.

For the investors, having a liaison with a venture capitalist play an important role in shaping the growth of the startups (Baum and Silverman 2004). Therefore, they take into account in which startups the venture capitalists have initially invested in. They also assess the intellectual capability of the startups. Investors also take into account the Initial Public Offering (IPO) stages of the startups when they are assessing their future growth rate. The success rate of the startups especially at the stage of their initial public offerings also depends on three criteria. Firstly, the investments from reputable financial institutions and the venture capitals are important as they provide a sense of trust for the future investors. Additionally, the startups can enjoy further effects of the success of these financial institutions in their next alliances (Chang 2004). Secondly, making strategic alliances with big corporations is an indicator of future growth, as they have access to the important social and technological resources (Chang 2004). These resources will eventually help the startups to grow within their industries. Lastly, it has been proved that these alliances improve the performance of both sides. Therefore, it is stated by Chang that having strategic alliances increases the chances of having a successful IPO process for the technology startups. The author also showed that the amount of strategic alliances that has been formed by the startup and also the reputation of the firms that the startup has formed a partnership with are also important criteria.

3 Proposed Framework and Methodology

Our proposed conceptual framework has been presented in Table 1. As we can see 27 factors have been selected during our literature review. In order to develop our conceptual framework which would yield a list of criteria for the selection of startups, we performed a literature review to determine the right set of factors which influences the selection process. All references related to the presented items are listed in this Table. In order to answer our research question we conduct an exploratory case study at a

Table 1. Our proposed conceptual framework with a conclusive list of criteria for the selection of successful startups.

					SELECTION CRITERIA																										
AUTHOR/YEAR	**METHOD**	**CONTEXT: General**	**CONTEXT: Venture Capitals**	**CONTEXT: SMBs**	**Startup`s alliances**	**Patents**	**team experience**	**Strategic Compatibility**	**Governance mechanism**	**Reputation of VC**	**Financials raised by startup**	**Number of strategic alliances**	**IPO Events**	**Cognitive Criteria (Interviews)**	**Characteristics of Lead Entrepreneur**	**Processes undertaken during founding**	**Strategic behaviours after founding**	**Prior Knowledge on startups**	**Startup`s position within its network**	**Competitive Advantage of products**	**Growth rate of the market**	**Management`s familiarity with market**	**Political factors**	**Economical factors**	**Size of the startup**	**Characteristics of top mnagement team**	**Relational Factors**	**History of past strategic alliances**	**Financials from reputable firms**	**Cooperative Cultures**	**Power dependency**
Gulati, 1999	Quantitative	x																x	x												
Gulati, 1995	Quantitative	x																	x								x	x			
Muthoka & Kilika, 2016	Qualitative			x				x															x	x	x	x					
Schmidt & Ochan, 1977	Quantitative	x																													x
Comi & Eppler, 2009	Qualitative			x		x	x												x										x		
Hoffmann& Schlosser, 2001	Qualitative			x				x	x									x													
Baum & Silverman, 2004	Quantitative		x		x	x	x								x																
Brouthers et al, 1995	Qualitative	x					x	x																						x	
Duchesnau & Gartner, 1990	Both	x													x	x	x														
Gelderen et al., 2005	Qualitative	x										x				x			x							x					
Zinecker & Bolf, 2014	Qualitative		x																	x	x	x									
Csaszar et al., 2006	Qualitative	x												x																	
Chang, 2004	Quantitative		x							x	x	x	x																		
Kinyenje, 2016	Quantitative	x						x																		x					
Das, 2000	Qualitative	x						x																							

financial tech company based in The Netherlands. The company is specifically selected to be in the fin-tech sector as this industry includes various disruptive and innovative projects led by the startups. The interviews will be conducted in one single company in order to get the full view of the firm's partnership strategies among its different departments (Baxter and Jack 2008). The interviewees are selected among different departments of the company in order to have a 360° view on the views of different managers on the selection criteria for their partners and startups. The interviewees were mainly the senior managers of the Product Innovation, the M&A and strategy teams who have managed the partnerships and the strategic alliances of the fin tech company. We interviewed 10 managers within the company and during our interview we investigated the significance of the identified factors in the selection process of startups within the company's routine.

4 Results

The results of our analysis have been presented in Fig. 1. The results indicate that all the managers who were involved in the selection process of startups agree on the fact that the team experience and the startup's position within its network are highly related to the success of the startup in the future. Furthermore, characteristics of the lead entrepreneur, competitive advantage of the firm's products and the valuable resources the startup has are also ranked among the criteria which managers look into and have strong influence in their decision making. As it can be seen almost 70 to 80% of the managers agree that intellectual capital (patents), strategic compatibility, strategic behaviors after founding, growth rate of the market, management's familiarity with the target market, economic factors, relational factors, cooperative cultures, power dependency, reputation of participating venture capitals are also among the interesting features that they might look into during a startup's selection process. The further we move on the list it is unlikely that managers reach an agreement on the identified factors. The participants also ranked the IPO events, history of past strategic alliances, processes undertaken during founding and political factors as the least important factors they take into account when selecting a startup to enter into an alliance. Most of the interviewees find the IPO events less relevant compared to the other criteria which was not in line with the obtained result of Chang (2004). Also half of our interviewees mentioned that the processes undertaken during founding and history of past strategic alliances had no effect on the success of a startup as a partner. The interviewees have indicated that the previous success of startups and their strategic decisions prior to the strategic alliance may not affect their future success. That is because, large enterprises will support them with certain resources which were lacking in their previous partnerships. The interviewees have also mentioned that the decisions the startups take after entering into an alliance are considered to be much more important. The previous literature by (Gulati 1995, Duchesnau and Gartner 1990 and Gelderen 2005) had indicated that these two criteria were important in selecting a partner. However, our obtained results indicate that the level of importance of these criteria might have deteriorated over the years. It may also be an indication that currently the managers focus more on the decisions the firms take after forming an alliance rather than their

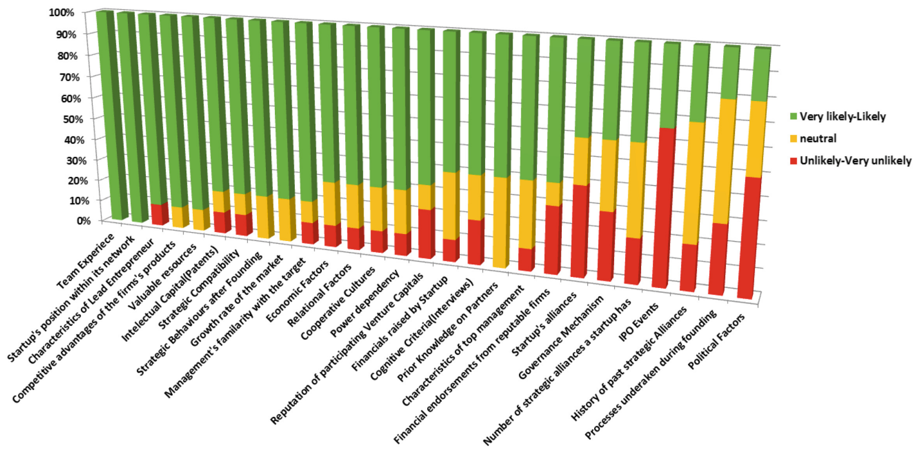

Fig. 1. Respondents were requested to indicate the level of importance of each factor within our proposed framework for the selection of startups.

former strategic decisions. Lastly, 40% of the interviewees do not find it necessarily important to consider prior knowledge on their partners. According to the obtained results they would prefer to partner up with new startups through their connections instead of approaching a new one. Thus, examining or interviewing a new startup's founding team as suggested by Chang (2004), do not provide a lot of benefits to the interviewees. Additionally, another interesting observation was related to the importance of the political factors. Muthoka and Kilika (2016) suggested that such criteria alongside with the economic factors might have an overall effect on the selection of startup. However, the interviewees indicated that they had not considered such factors in their selection process in the past and thus find it irrelevant to consider.

5 Conclusion and Discussion

As with the increase of technological focus of the companies and their innovation projects, more alliances are being formed with the startups. Startups make it easier for firms to manage their innovation projects and to enter in to new markets where technological capacities are a must. The absence of a general conceptual framework in the literature which would help with the selection of startups is quite visible in the literature. Therefore, our main goal in this research was to create a conceptual framework for assessing the selection criteria that should be used by a firm when entering into a strategic alliance with a startup. We performed a literature review to determine the right set of factors which influences this selection process. Next, we conducted an exploratory case study at a financial tech company based in The Netherlands. Semi-structured interviews were conducted at a large scale financial tech company to evaluate our proposed framework. The results of our expert interviews indicated that all the managers who were involved in the selection process of startups agree on the fact that the team experience and the startup's position within its network are highly related to the success of the startup in the future. Furthermore, characteristics of the lead entrepreneur, competitive advantage of the firm's products and the valuable resources the startup has were also ranked among the criteria which managers looked into and had strong influence in their decision making. In addition to the identified factors from the literature review (Presented in Table 1) additional selection criteria were identified by the interviewees which we will elaborate on each of them in the following. (1) Global Scale of the Startups: The interviewees have indicated that it is highly important for a startup to be able to operate globally or have the option to grow globally; (2) Leveraging Diversity for Creative Solutions; (3) Size of the startup; (4) Maturity of the Product of the Startup; (5) Selling Narrative: The selling narrative of the enterprise considers where the product of the startup falls; (6) Startup's Partner Priority: in order to not have conflicts in the future; (7) Timing of the partnership: when does the product of the startup goes in to the market; (8) Feasibility of the startup's product or solution: feasibility requirements or the user experience of the products; (9) The right spending of the funding by the startup: where the startup chooses to spend its initial funding that were received; (10) Being the leader in the target market.

We believe the presented research will be an important contribution to the literature as the proposed conceptual framework can be integrated with existing digital services to evaluate startups systematically. Furthermore, the results of this research can be used by companies who want to participate in the digital service innovation process or delivering social qualities at the system level (Koohborfardhaghighi and Altmann 2015, 2016, 2017). Future research should consider involvement of multiple actors from different industries for the sake of comparison and better assessment of the proposed framework.

References

Barney, J.: Firm resources and sustained competitive advantage. J. Manage. **17**(1), 99–120 (1991)

Baum, J.A., Silverman, B.S.: Picking winners or building them? Alliance, intellectual, and human capital as selection criteria in venture financing and performance of biotechnology startups. J. Bus. Ventur. **19**(3), 411–436 (2004)

Baxter, P., Jack, S.: Qualitative case study methodology: study design and implementation for novice researchers. e Qual. Rep. **13**(4), 544–559 (2008). http://nsuworks.nova.edu/tqr/vol13/iss4/2

Brouthers, K.D., Brouthers, L.E., Wilkinson, T.J.: Strategic alliances: choose your partners. Long Range Plann. **28**(3), 2–25 (1995)

Chang, S.J.: Venture capital financing, strategic alliances, and the initial public offerings of Internet startups. J. Bus. Ventur. **19**(5), 721–741 (2004)

Csaszar, F., Nussbaum, M., Sepulveda, M.: Strategic and cognitive criteria for the selection of startups. Technovation **26**(2), 151–161 (2006)

Comi, A., Eppler, M.J.: Building and managing strategic alliances in technology-driven start-ups. Università della Svizzera italiana (2009)

Das, T., Teng, B.: A resource-based theory of strategic alliances. J. Manage. **26**(1), 31–61 (2000)

Duchesneau, D.A., Gartner, W.B.: A profile of new venture success and failure in an emerging industry. J. Bus. Ventur. **5**(5), 297–312 (1990)

Galloway, S.: The Four: The Hidden DNA of Amazon, Apple, Facebook, and Google. Bantam Press, London (2017)
Gulati, R.: Social structure and alliance formation patterns: a longitudinal analysis. Adm. Sci. Q. **40**(4), 619 (1995)
Gulati, R.: Network location and learning: the influence of network resources and firm capabilities on alliance formation. Strateg. Manage. J. **20**(5), 397–420 (1999)
Gelderen, M.V., Thurik, R., Bosma, N.: Success and risk factors in the pre-startup phase. Small Bus. Econ. **24**(4), 365–380 (2005)
Hoffmann, W.H., Schlosser, R.: Success factors of strategic alliances in small and medium sized enterprises- an empirical survey. Long Range Plann. **34**(3), 357–381 (2001)
Kinyenje, M.: Factors That Influence Success of Strategic Alliances Between Mobile Service Providers and Commercial Banks in the Money Transfer Services. University of Nairobi (2016)
Kioko Muthoka, R., Kilika, J.: Towards a theoretical model for strategic alliance, and partner selection among small medium enterprises (SMES): a research agenda. Sci. J. Bus. Manage. **4** (1), 1 (2016)
Krishna, A., Agrawal, A., Choudhary, A.: Predicting the outcome of startups: less failure, more success. In: 2016 IEEE 16th International Conference on Data Mining Workshops (ICDMW) (2016)
Koohborfardhaghighi, S., Altmann, J.: A network formation model for social object networks. In: Zhang, Z., Shen, Z.M., Zhang, J., Zhang, R. (eds.) LISS 2014, pp. 615–625. Springer, Heidelberg (2015). https://doi.org/10.1007/978-3-662-43871-8_89
Koohborfardhaghighi, S., Altmann, J.: How strategic networking impacts the networking outcome: a complex adaptive system approach. In: Proceedings of the 18th Annual International Conference on Electronic Commerce: e-Commerce in Smart connected World, p. 30. ACM (2016)
Koohborfardhaghighi, S., Lee, D.B., Kim, J.: How different connectivity patterns of individuals within an organization can speed up organizational learning. Multimedia Tools Appl. **76**(17), 17923–17936 (2017)
Schmidt, S.M., Kochan, T.A.: Interorganizational relationships: patterns and motivations. Adm. Sci. Q. **22**(2), 220 (1977). https://doi.org/10.2307/2391957
Zinecker, M., Bolf, D.: Venture capitalists' investment selection criteria in CEE countries and Russia. Verslas: Teorija ir Praktika **16**(1), 94–103 (2015)