Identifying Factors Affecting the Valuation of Technology-Based Startups in Mashhad

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Abstract

The aim of the current research is to identify the factors affecting the valuation of technology-based startups in the city of Mashhad. The current research is applied in terms of purpose and qualitative method in terms of type, which was done with Delphi model. The population and statistical sample of 20 professors and experts with management expertise and active in the field of start-ups were selected by purposeful sampling. The research tool was a Delphi questionnaire, whose validity was also checked and confirmed. The Delphi pattern analysis method was also used to analyze the data. At first, by studying the sources of 50 components in 8 key dimensions (having expert management, the necessary knowledge and expertise of human resources, technological infrastructure and practical applications, information security in the startup network, financial and legal support, financial and economic and market position) as factors Effective on the valuation of technology-based startups, During three Delphi stages, 45 factors finally reached the consensus of the experts and were prioritized. The most important factors affecting the valuation of technology-based startups in Mashhad include the bargaining power of customers, flexibility in technology and technology, the use of correct data in the development of startups, the cost of reproducing technical knowledge, the combination of people with core expertise needed in the business team, location Market exclusivity, technology readiness, high market-friendly technology, use of global knowledge and information in ideation and implementation, required investment volume.

Keywords: Valuation, Startup, Technology, Delphi Analysis.

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Introduction

Technological start-ups, usually in their early years, have very limited collateral assets, which is unfavorable for traditional banking intermediaries, and this is one of the main challenges for these companies to finance their development (Moro Visconti, 2019). Valuing startups is difficult for several reasons. Because some of these are startup businesses or just ideas that have very little or even zero revenue and operational streams. Even those start-up companies that have profitable streams. The aim of the current research is to identify the factors affecting the valuation of technology-based startups in the city of Mashhad.

Methodology

 The current research is applied in terms of purpose and qualitative method in terms of type, which was done with Delphi model. In most sources, the Delphi method is divided into three general categories: classic Delphi, political Delphi and decision Delphi. They describe the classic Delphi method with four main features; The anonymity of participants in Delphi allows participants to freely express their opinions without social pressure to conform to others in the group. The Delphi method of politics is often used for political and social issues. In this method, the results of previous rounds are continuously given feedback. But here the goal is not to reach consensus among experts. This point is the most important difference between Delphi politics and classic Delphi. In fact, the goal of Delphi policy is to obtain different solutions, in line with this goal, the Delphi method is used as a tool to develop opinions, and the final goal is to choose the most appropriate policy. This method includes obtaining different opinions and opinions. The Delphi method of decision is used to make decisions about social issues. Unlike the previous two types that started from an existing reality, in Delphi the decision of a decision-making group defines the existing reality (Rahmani et all, 2020). Delphi is a systematic approach in research to elicit opinions from a group of experts on a topic or a question (Hsu et al, 2008) or to reach a group consensus through a series of questionnaire rounds while maintaining the anonymity of the respondents, and feedback of opinions to panel members (Keeney et al, 2001). Delphi participants are specialists or experts or panelists. They need four characteristics: subject knowledge and experience, willingness, sufficient time to participate, and effective communication skills (Landeta, 2006). Identification of experts is an important point in Delphi, as the achievement of goals depends on the careful selection of participants. Regarding the number of experts, there is no strong and clear law about it, and their number depends on many factors. The number of participants was usually less than 50 people and mostly 15 to 20 people (Behboodi, 2019) and even in some texts the criterion is between 10 and 15 people (Hsu & Brian, 2007). In terms of the number of rounds, articles have reported 2-10 rounds (Fray and Burr, 2001), but the classic Delphi included four rounds, which researchers usually shorten to two to three rounds to achieve their research goals (Landeta, 2006). Finally, for consensus, the consensus of the panel members and Kendall's coordination coefficient are used.The population and statistical sample of 20 professors and experts with management expertise and active in the field of start-ups were selected by purposeful sampling. The research tool was a Delphi questionnaire, whose validity

was also checked and confirmed. The Delphi pattern analysis method was also used to analyze the data.

Finding

First, to identify the factors affecting the valuation of technology-oriented startups in Mashhad, it is necessary to identify the main factors. In order to achieve this goal, a systematic review of articles, books and research backgrounds in general was conducted and a preliminary questionnaire based on the backgrounds was prepared. At this stage, by using the analysis of these texts, the initial list of factors was completed in the first stage. At first, by studying the sources of 50 components in 8 key dimensions (having expert management, the necessary knowledge and expertise of human resources, technological infrastructure and practical applications, information security in the startup network, financial and legal support, financial and economic and market position) as factors Effective on the valuation of technology-based startups, During three Delphi stages, 45 factors finally reached the consensus of the experts and were prioritized.

Conclusion: The most important factors affecting the valuation of technology-based startups in Mashhad include the bargaining power of customers, flexibility in technology and technology, the use of correct data in the development of startups, the cost of reproducing technical knowledge, the combination of people with core expertise needed in the business team, location Market exclusivity, technology readiness, high market-friendly technology, use of global knowledge and information in ideation and implementation, required investment volume.

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