



## Review of valuation models and identification and ranking of valuation indicators of startup companies in the idea stage in Iran based on AHP mathematical method

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### ABSTRACT

Humans need to understand and apply valuation to buy, sell, invest, value stocks, and many other things in order to make the right decisions in different situations. Today, due to the rapid growth of technology in the world and the tendency of companies towards startup companies, the category of valuation is of particular importance. If we want to divide startup companies into two general categories (1- Startup companies in the idea stage 2- Startup companies in the post-idea stage), we can divide the second category which has cash flow and physical assets by valuation methods such as value method, Net assets value (NAV), book value (BV), present value of cash flows (DDM), etc., but these methods are not applicable to the first category, which is in the early stages and lacks cash flows and physical assets. To value the first type of companies, methods such as valuation of Bill Payne scorecard, valuation of Dave Brexes, aggregation of risk factors are used, so researchers according to the conditions and in accordance with existing financial, tax, administrative, jurisprudential and religious laws, etc. In the country, experts, forensic experts, stock valuation experts, etc. have been researched and the dimensions, criteria and valuation indicators of startup companies in the idea stage, which lack cash flows and physical assets, have been identified through mathematical methods. AHP are ranked, as a model in the future Suitable for evaluating such companies to be used by users who currently have no model in Iran. Researchers, after identifying the valuation indicators of startup companies in the idea stage and compatible with the Iranian environment, have proceeded to rank these indicators, the results of which are given at the end of the article.

**Keywords:** Valuation, Startups, AHP

## 1. Introduction

Investors and buyers of companies and their shares from any group and class are facing major problems in choosing the types of companies and to buy shares in any amount, they need different and diverse information to be able to make the right decision. In this regard, the real value of stocks and the category of valuing companies is one of the basic and very important categories for investors. Which makes it necessary for investors to learn a variety of valuation techniques for a variety of companies.

In developed countries, companies or individuals who intend to buy and sell stocks go to specialized investment institutions or so-called investment banks that have long and useful experience in determining stock valuation. These institutions determine the value of companies' stocks by considering the company's profitability and its profitability outlook, general market conditions, the ratio of assets to liabilities, and technical and fundamental analysis. The key to success in investing and managing assets is understanding the value and resources that affect the value of that asset. In general, there are two uncertainties related to valuation: 1- Uncertainty about valuation models 2- Uncertainty about the asset itself (Mehrani et al., 2010). Valuation means estimating the value of an asset (here the company's stock) based on the fundamental factors affecting the value of the asset and its Latin equivalent is valuation (Gomar, 1397). The basis of any investment is its correct and accurate valuation. In the stock market, stock valuation is just as important.

There are many models and models for valuing stocks and valuing companies that have cash flow, tangible assets, etc., some of which are: P / E, PEG, Ahlsson, net asset value, profitability and. ... The use of any of these methods for valuation has limitations and risks such as ignoring the expected future growth, continuing or stopping the company for valuation, and so on.

With the development of technology and the introduction of new technologies such as the Internet, web, virtual networks, etc. in today's world and the use of these technologies by people, companies have emerged that most of their activities are done through new technologies and the web. They are called startup companies. These companies are generally divided into two groups of companies in the idea stage and companies after the idea stage. There are various

models and methods for evaluating such companies in the world, such as Brooks model, Bill Payne scorecard method, coefficients method, comparison method, etc., some of which are for evaluating startup companies in the idea stage and some for startup companies. The second type is used.

Considering that one of the researchers of the present article works on the valuation of companies' stocks and sometimes companies are assigned to him and his colleagues for valuation, which are among startup companies and lack cash flows and physical assets due to the lack of a model. To evaluate such companies, such companies can not be evaluated and referred to applicants. Therefore, after being aware of this problem and passion, the researchers came to the conclusion that the above issue should be considered as a scientific research and to identify and rank the indicators, criteria and valuation dimensions of such companies, in this regard, to identify them and They were ranked and scored by one of the scientific methods (AHP).

## 2. Theoretical foundations and research background

The steps of the present study are as follows:

- 1) Reviewing the valuation methods of startup and non-startup companies
- 2) Identifying indicators, dimensions and valuation criteria of startup companies in the idea stage in Iran
- 3) Ranking of indicators identified through AHP model

Stock valuation is a systematic process that processes the required data (including growth, risk and cash flows) by historical and strategic analysis of a company (industry) with the aim of determining the intrinsic value. In stock valuation, we can search, compare, evaluate, measure and value value stimuli and value-added factors through other different and conventional methods. (Mehrani, Stock Valuation, 2013)

### Some models and methods of stock valuation used in Iran

#### Method of net value of assets

This method is usually called the current replacement method or the revaluation method. In the net asset

daily value method, the value of the company is calculated through the following equation.

Current value of debts-daily value of assets = value of the company

### Profitability method

The method of return or profitability method is the ratio of net profit before tax to the rate of return on investment, taking into account the effect of side factors that adjust the stock price. This method is also used in Tehran Stock Exchange. In the profitability method, the profitability capacity of the company as well as the profitability process over time is the basis for calculating the value of the company.

### Nominal value method

In this method, the value of the company is the nominal value of the total shares issued by the company, which is reflected in the balance sheet in the equity section as capital.

### Cash profit discount model

One of the easiest valuation methods is to use cash dividends as a return on equity for shareholders. According to this model, the share value is the total present value of the expected cash dividends paid to shareholders in each period. Many financial analysts may be looking for new models through which intrinsic value can be determined, and many of them think that cash flow discount models are obsolete in search of alternative models, but they have always shown experience and scientific evidence. Cash profit is a very important factor in valuation and cash profit reduction models are a useful tool for determining value.

Startup: Neil Blumenthal, founder and CEO of Warby Parker, defines a startup as: A startup is a start-up company that offers a new solution to a problem; While there is no guarantee for the success of the company through the proposed solution. Adora Cheung, founder and CEO of Homejoy, one of the leading US startups in 2013, defines this concept as a window to the future in the definition of startup. (Onion, 1395)

**1. Scorecard method**, designed by Bill Payne, is a comparative method used to find the value of startups active in the early stages. In this method, each startup is evaluated based on 7 main factors, each of which has a certain weight and points are awarded to each

factor. These factors, along with the suggested weight of each, are as follows:

- 1) Ability of the management team / startup founders: 30% weight.
  - 2- Startup opportunity size: 25% weight.
  - 3- Product / technology: weight 15%.
  - 4- Competitiveness of the environment: weight 10%.
  - 5- Sales and marketing channels: weight 10%.
  - 6- Need to attract more capital: 5% weight.
  - 7- And other factors such as customer feedback: weight 5%.
- 2) Cost to duplicate method, the value of a startup assumes that the value of a startup is equal to all the costs that have been spent so far or equal to the launch and continuation of its activities. (Mashhadi, 1397)
  - 3) Dave Berkus method of valuation This method, as its name implies, was invented by Dave Berkus, one of the most successful angel investors in the 1990s. In this way, without the need for startup financial forecast information, its value can be estimated experimentally by evaluating several key startup indicators. These indicators include the following:
    - 1- Idea
    - 2- Product prototype
    - 3- Management team
    - 4- Strategic partnerships
    - 5- Sales

If the startup excels in any of these metrics, a maximum of \$ 0.5 million will be added to its value. So if a startup is strong in all five of these indicators, it will be worth \$ 2.5 million, otherwise it will receive between \$ 0 and \$ 0.5 million per value index. For example, a startup can earn \$ 0.5 million in the first four indices and \$ 0.3 million in the last four indices, so the startup will be valued at \$ 2.3 million. (Mashhadi, 1397)

- 4) Risk factor summation method The risk factor aggregation method first introduced by the Ohio TechAngels investment group is a relative method for valuing startups. In this method, the startup is evaluated based on 11 risk factors, so that the more risks the startup has, the lower its value will be. These risk factors are as follows:
  - 1- Managerial risk
  - 2- Economic risk
  - 3- Legal risk
  - 4- Market size risk
  - 5- Product prototype risk
  - 6- Investor exit risk
  - 7- Competitiveness risk
  - 8- Scalability risk
  - 9- Income model risk
  - 10- Risk of having similar foreign samples

In this way, according to the conditions of each startup, other risks can be included in the valuation. In

this method, based on whether the risk factor has a negative or positive effect on the future performance of the startup, a score between minus 2 to 2 is referred to. (Mashhadi, 1397)

- 5) Conformity method In this method, the value of all startups is assumed to be the same and in exchange for receiving a fixed percentage of shares (for example 10%), a fixed capital (for example 100 million USD) is awarded to them. Therefore, startups in this situation can only accept or reject the offer of investors. (Mashhadi, 1397)
- 6) VC method In this method, the value after the acquisition of the startup capital will be equal to the final value or exit value (Terminal Value) of the startup, divided by the return expected by the investor. (Mashhadi, 1397)
- 7) Analytical benchmarking method in analytical sampling method which is a relative and comparative method. In this method, after finding a reference startup that should be similar to the startup in terms of business model and value propositions, we compare the two startups in terms of different factors. Comparison factors need to be adjusted to get the right value from the source startup. For example, because the reference startup operates in another country, it is necessary to compare factors such as market size, startup development stage, population, GDP per capita, etc. with the source startup and multiply the ratio of each of these factors by the reference startup valuation. The value of the startup can be estimated. (Mashhadi, 1397)
- 8) Fair market value method The fair market value method for an asset or commodity is the price agreed upon by the buyer and seller provided that the parties to the transaction are aware of all relevant information and are compelled to buy or sell. Do not have. (Mashhadi, 1397)
- 9) Comparables method In the comparative valuation method, we estimate the value of the startup by directly comparing an important indicator between the valued startup and a similar company as a reference. (Mashhadi, 1397)
- 10) Multiples method This method of valuing startups is based on comparison. To calculate

the value of a startup through the coefficient method, it is enough to compare its sales, revenue or profit statistics with similar public companies whose information is available in the stock market .. (Mashhadi, 1397)

- 11) Discounted cash flow method Among the valuation methods of startups, the discounted cash flow method can be introduced as the most complete method of valuing middle and final stage startups. The results of a survey by the academy show that 90% of venture capital firms use the discounted cash flow valuation method to value startups. (Mashhadi, 1397)
- 12) Chicago Valuation Method The Chicago Valuation method was developed by a venture capital firm called First Chicago. In this method, 3 possible scenarios (success, survival and failure) for the future of the startup are considered and for each possible scenario. Then, from each scenario, a different value for the startup will be obtained, which can be obtained by calculating the weighted average of these three digits, the final valuation of the startup. (Mashhadi, 1397)
- 13) Real Options method Existing options means all the choices facing the startup; Options such as deciding to enter new markets, stopping a product or something else.

In a study on the effect of cognitive bias of investors on the Tehran Stock Exchange on stock valuation using the Rhodes kroopf model, Rahnamai Rudposhti et al. It is affected by biases such as agency intuition and overconfidence, as well as the relationship between behavioral index and factors such as company size, B / M ratio, company age, price and past stock returns, and so on.

Bernard Duchess (1995) was one of the first researchers to examine the relationship between corporate accounting valuable data. According to their research results, the usefulness of accounting variables is higher than dividends, which confirms the relationship between accounting numbers and company value.

Ahlsen and Feltn (1995) evaluated the residual profit model. They showed that in terms of confidence, stock prices are a reflection of book value and profit.

The researcher by studying valuation books and articles and reviewing the indicators raised in the valuation methods of startup companies and research

and inquiry and finally preparing and distributing questionnaires from experts such as university professors, legal experts, investment companies, startup companies and ... Which are closely related to the category of company valuation, the dimensions, components and indicators used in the valuation of startup companies in the idea stage according to the current situation in Iran, have been identified and extracted as follows.

Valuation components of startup companies in the idea stage include 1- management dimension 2-

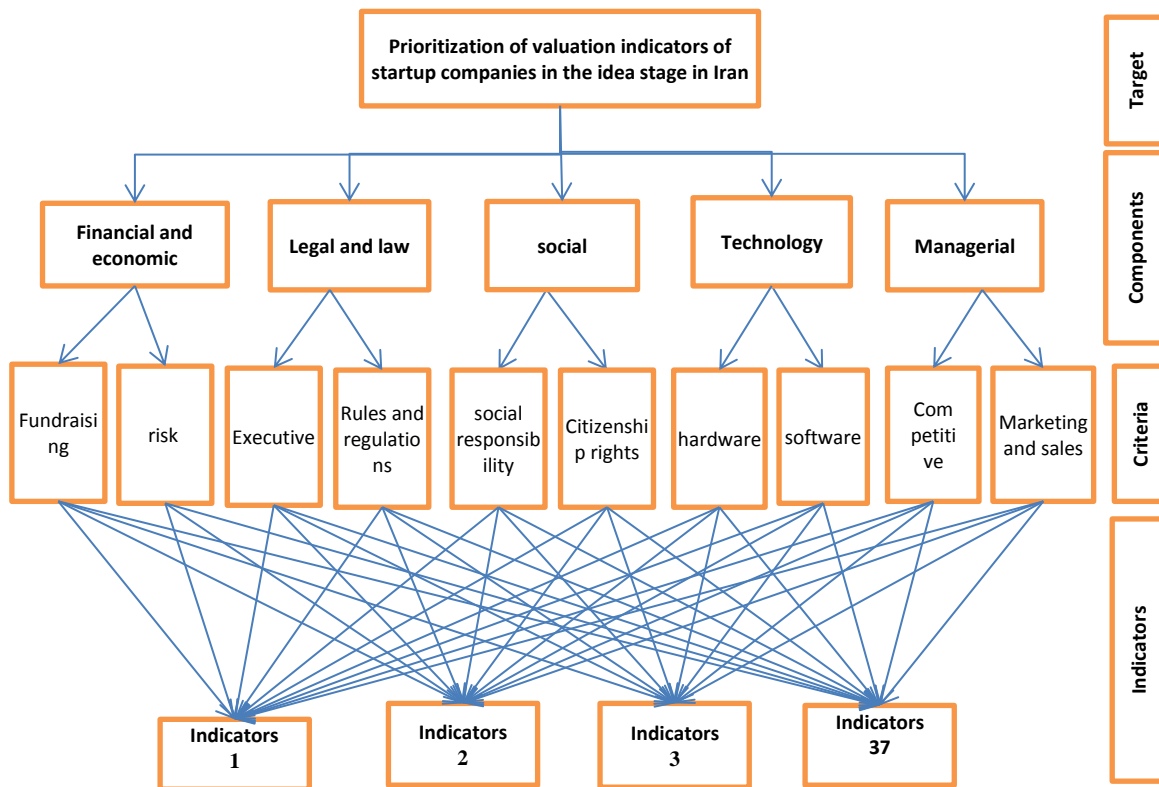
technology dimension 3- social dimension 4- rules and regulations dimension 5- financial and economic dimension

Valuation criteria of startup companies in the idea stage include: 1- Marketing and sales criteria 2- Competitiveness criteria 3- Software criteria 4- Infrastructure and network criteria 5- Citizenship rights criteria 6- Social responsibility criteria 7- Regulations and criteria criteria 8- Criteria Execution 9- Risk criterion 10 is the criterion of capital attraction.

The valuation indicators of startup companies in the idea stage are as follows:

Index	indicator	Index	indicator
1	Capability of management team or founders	20	Ability to implement the idea in the environment inside and outside Iran
2	Advertising and marketing	21	Lack of a similar idea in Iran
3	Mass supply of product in the country	22	Understandability of the idea
4	Online and offline use of ideas	23	The amount of capital
5	Competitiveness of ideas inside and outside the country	24	How to raise capital
6	Compatibility of ideas with similar and dissimilar businesses	25	Financial and economic idea
7	Ability to produce prototype and bulk product of ideas	26	Managerial risk
8	Having the available software infrastructure	27	Economic risk
9	Operation of the software	28	Exchange rate risk
10	Having existing hardware infrastructure	29	Inflation rate risk
11	Having a single user or network product	30	Legal risk
12	Use WhatsApp, Instagram, etc. to introduce the idea	31	Liquidity risk
13	Adaptation to social culture	32	Risk of lack of skilled staff
14	Compatibility with religious culture	33	Competition risk
15	Social responsibility of users	34	investment risk
16	Environmental considerations	35	Investor exit risk
17	Conformity of the idea with the Constitution of the Islamic Republic	36	Profitability risk
18	Conformity of the idea with Islamic jurisprudence	37	Production risk
19	Compliance of the idea with the administrative and tax laws of Iran		

The decision tree of the present study is as follows:



Hierarchical Analysis Process: Hierarchical analysis process, or AHP for short, is one of the MADM methods that is used to make a decision and choose one of the many decision options according to the criteria determined by the decision maker. This method was invented and introduced in 1980 by Thomas Saati. This process reflects natural behavior and human thinking. This technique examines complex problems based on their interactions and converts them into a simple form and solves them (Mehregan, 2008, p. 165).

Steps and implementation of the hierarchical analysis process

- A) Construction of a hierarchical tree for the purpose of research
- B) Weighing the effective factors
- C) Preparation of even and normalized comparison matrices and calculating the final weight of each of the criteria and sub-criteria.
- D) Preparation of raster layers of each criterion and its sub-criteria and multiplying them by their weight.

F) Determining the final score of factors (priorities and preferences)

S) Calculate the compatibility and incompatibility of matrices and the final decision

Weighting factors as a pairwise comparison based on preference (Ghodsipour, 2008)

value preferences	Numerical
9	Totally preferred or totally important or totally desirable
7	Preference with very strong importance or desirability
5	Preference with strong importance or desirability
3	A little preferred or a little more important or a little desirable
1	Equal preference or importance or desirability
2,4,6,8	Preferences between strong distances

Model implementation:

**Components:**

The following table shows the relative importance of the valuation components of startup companies in the idea stage from the perspective of experts:

The incompatibility rate of the above components due to realism and easier understanding than Choice Expert software, has been done through Excel software as follows:

As can be seen in the table above, to calculate the rate of incompatibility, in the first step the geometric mean of each component was calculated and normalized, and in the second step the total weight vector (wsv) was

obtained by multiplying the normalized weights in the matrices. In the third step, the adaptation vector (CV) was obtained by dividing the total weight vector by the normalized weights. In the fourth step, the Landa max of the mean of the compatibility vector and in the fifth step, the incompatibility index of the formula  $\max-n / n-1$ , the result of which is 00331 /. Was obtained and finally in the sixth step the incompatibility rate was obtained by dividing the incompatibility index by a random index of 1.12 (Table 20) which is equal to / 00296. That is, from 1 /. It is less and indicates the compatibility of the components of this model.

Financial and economic	Legal and law	social	Technology	Managerial	Component
1/3	1/2	1	1/3	1	Managerial
1	2	3	1	3	Technology
1/3	1/2	1	1/3	1	social
1/2	1	2	1/2	2	Legal and law
1	2	3	1	3	Financial and economic

incompatibility rate	Incompatibility Indicators	Calculate Landa max	cv=wsv/w	wsv=(D*w)	Normalized weights	Geometric mean	Financial and economic	Legal and law	social	Technology	Managerial	Component
.00296	.00331	5/01	5/01	.494	.099	.061	1/3	1/2	1	1/3	1	Managerial
			5/01	.067	.313	1/783	1	2	3	1	3	Technology
			5/01	.494	.099	.061	1/3	1/2	1	1/3	1	social
			5/03	.884	.176	.1	1/2	1	2	1/2	2	Legal and law
			5/01	.067	.313	1/783	1	2	3	1	3	Financial and economic
					1	5.69	3	4	7	3	10	Sum

**Table: Random index**

15	14	13	12	11	10	9	8	7	6	5	4	3	2	N
1/59	1/57	1/56	1/48	1/51	1/49	1/45	1/41	1/32	1/1	1/12	.9	.58	.	R.I

**Management criteria:**

The following table shows the relative importance of the following management criteria for evaluating startup companies in the idea stage from the perspective of experts, whose geometric mean has been calculated and normalized:

Normalized weights	Geometric mean	Competitive	Marketing and sales	Managerial
.33	.71	1/2	1	Marketing and sales
.67	1/41	1	2	Competitive

**Technology benchmark:**

The following table shows the relative importance of the following valuation criteria of startup companies in the idea stage from the point of view of experts, whose geometric mean has been calculated and normalized:

Normalized weights	Geometric mean	hardware	software	Technology
.67	1/41	2	1	software
.33	.71	1	1/2	hardware

**Social criteria:**

The following table shows the relative importance of the following social criteria for valuating startup companies in the idea stage from the perspective of experts whose geometric mean has been calculated and normalized:

Normalized weights	Geometric mean	social responsibility	Citizenship rights	social
.50	1	1	1	Citizenship rights
.50	1	1	1	social responsibility

**Legal criteria:**

The following table shows the relative importance of the following legal criteria for evaluating startup companies in the idea stage from the point of view of experts whose geometric mean has been calculated and normalized:

Final weight	Relative weight of indicators	Indicators	Components * Criteria	Relative weight of criteria	Criteria	Relative weight of components	Components
.00091	.0276	Capability of management team or founders	.0329	.33	Marketing and sales	.099	Managerial
.00081	.0264	Advertising and marketing					
.00083	.0252	Mass supply of product in the country					
.00072	.0219	Online and offline use of ideas					
.00171	.0260	Competitiveness of ideas inside and outside the country	.0658	.67	Competitive		
.00176	.0268	Compatibility of ideas with similar and dissimilar businesses					
.00174	.0264	Ability to produce prototype and bulk product of ideas					
.00664	.0309	Having the available software infrastructure	.2090	.67	software	.313	Technology
.00569	.0279	Operation of the software					
.00314	.0301	Having existing hardware infrastructure	.1045	.33	hardware		
.00267	.0256	Having a single user or network product					
.00280	.0268	Use WhatsApp, Instagram, etc. to introduce the idea					
.00138	.0280	Adaptation to social culture	.0493	.50	Citizenship rights	.099	social
.00114	.0231	Compatibility with religious culture					
.00118	.0239	Social responsibility of users	.0493	.50	social responsibility		
.00117	.0248	Environmental considerations					
.00091	.0260	Conformity of the idea with the Constitution of the Islamic Republic	.0352	.20	Rules and regulations	.176	Legal and law
.00068	.0194	Conformity of the idea with Islamic jurisprudence					
.00093	.0264	Compliance of the idea with the administrative and tax laws of Iran					
.00458	.0325	Ability to implement the idea in the environment inside and outside Iran	.1407	.80	Executive		
.00389	.0276	Lack of a similar idea in Iran					
.00383	.0272	Understandability of the idea					
.00707	.0301	The amount of capital					
.00688	.0293	How to raise capital	.2351	.75	Fundraising		
.00765	.0325	Financial and economic idea					
.00204	.0260	Managerial risk	.0784	.25	Risk	.313	Financial and economic
.00210	.0268	Economic risk					
.00213	.0272	Exchange rate risk					
.00230	.0280	Inflation rate risk					
.00204	.0260	Legal risk					
.00210	.0268	Liquidity risk					
.00200	.0256	Risk of lack of skilled staff					
.00216	.0276	Competition risk					
.00213	.0272	investment risk					
.00220	.0280	Investor exit risk					
.00233	.0297	Profitability risk					
.00229	.0293	Production risk					



Normalized weights	Geometric mean	Executive	Rules and regulations	Legal and law
.20	1/2	1/4	1	Rules and regulations
.80	2	1	4	Executive

### Financial and economic criteria:

The following table shows the relative importance of the following financial and economic criteria for evaluating startup companies in the idea stage from the perspective of experts whose geometric mean has been calculated and normalized:

Each of the components of the model has two criteria and considering that if the number of matrices in the model is 2, there is no need to calculate the incompatibility rate and matrices less than 3 are compatible.

Normalized weights	Geometric mean	risk	Fundraising	Financial and economic
.75	1/73	3	1	Fundraising
.25	.58	1	1/3	risk

### Indicators:

The table for calculating the final weight of the indicators is as follows:

After obtaining the final weight of components and criteria, to rank and calculate the weight of each of the valuation indicators of startup companies in the idea stage, a questionnaire was first prepared and completed by 57 experts based on a 9-point Likert scale, which was then The final weight of each component was multiplied by the weight of its sub-criteria and the final weight of each sub-criterion was also multiplied by the final weight of the indices. It can now be the basis for evaluating startup companies at the idea stage that lack physical assets and cash flow.

### The final weight and rank of each indicator in order of priority are as follows:

Rank	Final weight	indicator	Rank	Final weight	indicator
20	.0020	Liquidity risk	1	.0077	Financial and economic idea
21	.0020	Managerial risk	2	.0071	The amount of capital
22	.0020	Legal risk	3	.0069	How to raise capital
23	.0020	Risk of lack of skilled staff	4	.0065	Having the available software infrastructure
24	.0017	Compatibility of ideas with similar and dissimilar businesses	5	.0057	Operation of the software
25	.0017	Ability to produce prototype and bulk product of ideas	6	.0046	Ability to implement the idea in the environment inside and outside Iran
26	.0017	Competitiveness of ideas inside and outside the country	7	.0039	Lack of a similar idea in Iran
27	.0014	Adaptation to social culture	8	.0039	Understandability of the idea
28	.0012	Environmental considerations	9	.0031	Having existing hardware infrastructure
29	.0012	Social responsibility of users	10	.0028	Use WhatsApp, Instagram, etc. to introduce the idea
30	.0011	Compatibility with religious culture	11	.0027	Having a single user or network product
31	.0009	Compliance of the idea with the administrative and tax laws of Iran	12	.0023	Profitability risk
32	.0009	Conformity of the idea with the Constitution of the Islamic Republic	13	.0023	Production risk
33	.0009	Capability of management team or founders	14	.0022	Inflation rate risk
34	.0009	Advertising and marketing	15	.0022	Investor exit risk

Ra nk	Final weight	indicator	Ra nk	Final weight	indicator
35	./0008	Mass supply of product in the country	16	./0022	Competition risk
36	./0007	Online and offline use of ideas	17	./0021	Exchange rate risk
37	./0007	Conformity of the idea with Islamic jurisprudence	18	./0021	investment risk
			19	./0021	Economic risk

According to the information in the table above, among the 37 selected indicators, financial and economic efficiency of the idea and the amount of capital are in the first and second ranks, respectively, and the adaptation of the idea to Islamic jurisprudence and online and offline use of the idea are in the last ranks.

### 3. Research questions

- 1) What are the valuation components of startup companies in the idea stage?
- 2) What are the valuation criteria of startup companies in the idea stage?
- 3) What are the valuation indicators of startup companies in the idea stage?
- 4) Considering the current situation in Iran, can the indicators identified in the valuation methods mentioned in this research be a suitable basis for valuing startup companies in the idea stage in Iran?
- 5) Which of the indicators identified in this research is more important for valuing startup companies in the idea stage than other indicators?

### 4. Research methodology

The method of collecting the present study is library and the research method is from experts and official experts of the judiciary and startup companies and its collection tool is observation, interview, questionnaire and using scientific methods such as AHP.

### 5. Research variables

Doing any research requires determining and defining each of the research variables. Research variables are divided into two categories based on their role in research:

A) Dependent variables b) Independent variables

In the present study, the dependent variable is the valuation of startup companies in the idea stage

and independent variables, advertising and marketing indicators, mass product supply in the country, online and offline use of the idea, no similar idea in Iran, comprehensibility of the idea and other indicators Raised in this research.

### 6. Conclusion and discussion

Stock valuation is a systematic process that processes the required data (including growth, risk and cash flows) by historical and strategic analysis of a company (industry) with the aim of determining the intrinsic value. Startup is a start-up company that offers a new solution to a problem; While there is no guarantee for the success of the company through the proposed solution, startup companies in the idea stage refers to companies that are in the early stages and lack cash flow, fixed assets and financial statements. Startup companies after the idea stage refers to companies that have cash flow, fixed assets and financial statements. The process of hierarchical analysis, or AHP for short, is one of the MADM methods that is used to make a decision and choose one of the many decision options, according to the indicators that the decision maker determines. Considering that the official experts and trustees of companies' stock valuation did not have a suitable model for valuing startup companies in the idea stage without physical assets and cash flows, so in this study, researchers in a variety of startup companies valuation methods such as Bill Payne, Brex scorecard method , Aggregation of risk factors, compliance, analytical sampling, fair market value, comparative method, etc. were examined and analyzed, and the criteria, indicators and risks of each of the aforementioned models and methods were examined and analyzed. Finally, based on research by experts, forensic experts, stock valuation specialists and other people who have some kind of relationship with startups and corporate valuations and gained experience and have been so-called experts in this

field, components, criteria and indicators Evaluate, extract and rank.

In response to the first, second and third questions, what components, criteria and indicators are suitable for evaluating startup companies in the idea stage according to the existing restrictions and conditions for Iran? It can be said that the components, criteria and indicators extracted by experts are detailed in paragraph 2 of this study. In response to the fourth question, which according to the current situation in Iran, can the indicators identified in the valuation methods mentioned in this research be a good basis for valuing startup companies in the idea stage in Iran? It can be said that the above models are designed for environments outside of Iran and with the cultures and laws of other countries, due to the existing laws and restrictions such as administrative, financial and fiscal, jurisprudential, Islamic laws in Iran are not suitable and Even if it is appropriate, it is not complete and comprehensive. In response to the fifth question, which of the indicators identified in this study is more important for evaluating startup companies in the idea stage than other indicators? It can be said that among the 37 selected indicators, financial and economic efficiency of the idea and the amount of capital in the first and second ranks and the adaptation of the idea to Islamic jurisprudence and online and offline use of the idea are in the last ranks. The ranking table and weight of each index are given in detail at the end of paragraph 2 of this article.

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