Business and Social Science: The Study on Investment-Based Prioritization of Enterprise Companies in Stock and Exchange Market through Analytical Hierarchy Process

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Abstract

The development of investment may lead to increased non-efficient investment and direct it toward the economically productive fields. Considering the great changes the world nowadays experienced, all countries are essentially required to apply the most efficient strategies to best use of the facilities and investment available to consequently settle down the economic problems. That is to mention, the financial markets are of crucial role in most economics. That is why most countries round the world consider such aspects being as most essential. Besides, the enterprise companies are considered being as financial intermediates that attempt on selling the stocks to the public to invest the interest achieved in stock and bond fields. The current research is mainly aimed at not only studying the formulization of the issue mentioned but also the prioritization of crucial criteria used to assess the enterprise companies (output, risk, the net value of assets, the rate of interest for per stock, the cash as well as the policy on interest share or division) through a software pack named EPERT CHOICE 2000.

Keywords: the analytical hierarchy process, output, risk, the net value of assets, the rate of interest for each stock, the cash as well as the interest share.

I. INTRODUCTION

The development of investment not only leads to increased non-efficient investments and drive them towards economically productive fields but also directs them towards the industries with high benefits and low risks. This may in turn lead to established allocation of resources. Considering the great changes the world has Available and subsequently settles their own economical problems. One of the best strategies here is to extend and develop the investment which essentially requires a market with high productivity. Such a market should be efficient in attracting the people wishing to invest in a way all the people have equal access to real and required information. Besides, the investing institutions and companies are essentially required to involve actively in cultural affairs to pave the way for such affairs to be developed. The main role of exchange and stock market is aimed at attracting and directing the savings and the
floating cash towards the productive fields in economics in a way an established allocation of resources will be achieved hereby. That is to mention, it mainly depends on efficient and productive financial markets. The financial markets are of crucial role in economics. That is why the countries round the world strongly attempt on establishing some aspects of such a market. Meanwhile, the enterprise companies are considered being as financial intermediates that sell the stocks to the public and invest the interests achieved in exchange and stock fields. The role of the markets here is to attract the customers and buyers interested in such affairs and establish a mutual relationship between them. The enterprise company is a financial intermediate which invests the interests achieved from selling the exchange and stocks. The main goal of such companies is to increase the output as most. Besides, factors such as the recognition and development as well as the prioritization of reliable criteria will be of highly significant role in directing the changes happened in such fields.

II. LITERATURE REVIEW

Statement of the problem and the significance of the study
People usually attempt on investing activities through financial and physical assets. By investment, it is meant ignoring the current consumption to subsequently achieve the future consumption. The investment in financial assets is performed through purchasing the stocks and exchanges and so on. ever experienced, all the countries round the world are essentially required to apply the best strategies to make the best of facilities and assets. The investment on companies’ stocks will be highly beneficial to the owners which are as follow:

1- The interest shared such as the cash, the stock as prize and the shared stock
2- The interest achieved from the increased price of the stocks
3- The priority in using the stock purchase

The investment can be highly extended and developed. In general, the investment means changing the cash into some assets to be long maintained in future. So, such an investment essentially requires studying the strategies involved in such fields. It also requires the assets of the investors to be potentially managed. Therefore, the current value and the integrated interest will be of crucial role in investing affairs. In decision-making process, choosing the factors highly important in achieving the best solutions can be considered being as one of the significant steps to be made here. Such factors help us choose the best strategy out of a thousand. Such decisions are often made based on different criteria. The analytical hierarchy process is considered being as one of the best multipurpose decision-making strategy which was first introduced by El Saati in 1970s.

The necessity and significance of the study

The exchange and stocks are considered being as the main way to furnish and efficiently allocate the assets and properties available in the country. The ability to recognize such a market and the elements involved is one of the main factors leading to developed investment
market. The investors are also considered being as one of the important elements of such a market. The investors have different goals for such investments. That is to mention, their own different interests in allocating or maintaining the companies’ interests may lead to different expectations on policies involved in allocating and sharing the interest. Since an efficient decision on the time and the rate of purchase or selling the stocks in enterprise companies strongly impacts the business and also the fact the traditional methods can’t account for the enterprise companies’ needs, it is essentially required to think about a highly potential method in this field.

Research hypotheses

Since the investors can’t predict the future, the variety and diversity in such fields may lead to decreased rate of risks. So, the investors attempt on purchasing the shares and stocks to make the best of their outputs. The following criteria are regarded being as the ones the investors are essentially required to consider. The main hypotheses of the mentioned research are as follow:

H1: The output factor is of high priority in assessing the enterprise companies
H2: The risk factor is of second priority in assessing the enterprise companies
H3: The net value of assets and properties is of third priority in evaluating the enterprise companies
H4: The interest rate of each share is considered being of the fourth priority in assessing the enterprise companies
H5: The cashing factor is of fifth priority in assessing the enterprise companies
H6: The policy for allocating and distributing the interests achieved is of sixth priority in assessing the enterprise companies.

The research domain (in time, space and subject)

The temporal domain: the current research was performed in 1388, aimed at studying the number of enterprise companies in exchange and stock markets. The spatial domain refers to enterprise companies involved in Iran investment market. The participants include the enterprise companies attended in exchange and stock market which were about 34 in 1388 based on the report published by exchange and stock organization. So, the questionnaires were sent to these companies, asking them only a person in charge of making decision on selling or purchasing the shares such as the directing manager is required to answer the questionnaire. Then the questionnaires were collected to be analyzed through a soft ware named Expert Choice and a technique named analytical hierarchy process.
III. DATA AND METHODOLOGY

The analytical hierarchy process

Decision-making is one of the main features of a human. Every person may make a lot of decisions in a day. Since making a correct and in time decision can have considerable effects on our social and personal life, it is essentially required to apply a highly potential technique in this field. The analytical hierarchy process is considered being as one of the best and most efficient ones. This technique helps the decision-makers best evaluate different scenarios based on paired comparisons. This technique has been recently concerned a lot.

The construction of analytical hierarchy process

To construct such a comprehensive process, it is first required to assign the general goal at the center and the other factors and criteria impacting the goals in lower parts. If necessary, the criteria can be divided into subgroups. The decision-making options will be put in the lowest part. This situation makes a standard framework like the following.

Diagram 2: the hierarchy process
The first step: changing the matrix D (decision-making) into a non-scaled matrix.
The second step: establishing a non-scaled matrix.
The third step: verifying an ideal positive and negative solution
The fourth step: calculating the distance from the ideal solution
The fifth step: calculating the partial closeness of each Ai options to the ideal solution.
The sixth step: rating based on regressive arrangement CLI

The research method and the ways to collect information

The theoretical information was collected through library-based study and also reading the papers and the books related to investment and decision-making theories. The resultant important factors used to assess the enterprise companies are considered being as the results achieved from collecting the information. Besides, the construction of a conceptual model and also providing the required questionnaires were also under consideration. Such questionnaires were analyzed by the experts and officials involved. The results achieved from such questionnaires were then put under analysis through a soft ware named AHP and other related soft ware. The factors having potential effects on assessing the enterprise companies, constructing the analytical hierarchy process and decision-making on prioritizing them are the results achieved in this section.

IV. EMPIRICAL RESULTS

Testing the research hypotheses

The introductory hypothesis is mainly focused on prioritizing the enterprise companies in exchange and stock market though analytical hierarchy process in companies attended in
Tehran exchange and stock market. To test the mentioned hypothesis, the null hypothesis was defined as follow:

Considering the information extracted from the questionnaires, the figures in left hand and also the diagrams show the cash potency is of highest priority and Table 4-2: a summary of final criteria and factors and their positions in the table based on the priorities.

<table>
<thead>
<tr>
<th>The policy on interest distribution</th>
<th>The cash</th>
<th>The interest rate of each share</th>
<th>The net value of the assets</th>
<th>The risk</th>
<th>The output</th>
<th>Factor/description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/167</td>
<td>0/208</td>
<td>0/208</td>
<td>0/125</td>
<td>0/125</td>
<td>0/167</td>
<td>The partial comparison of the factors</td>
</tr>
<tr>
<td>1.39</td>
<td>1.88</td>
<td>1.57</td>
<td>1.79</td>
<td>1.52</td>
<td>1.86</td>
<td>The final weight and value</td>
</tr>
<tr>
<td>sixth</td>
<td>Fourth</td>
<td>first</td>
<td>third</td>
<td>fifth</td>
<td>second</td>
<td>The priority</td>
</tr>
</tbody>
</table>

So, the priority-based arrangements of the factors involved are as follow:
1- The cash potency is of the first priority
2- The output factor is of second priority
3- The net value of assets and properties is of the third priority
4- The interest rate of each share is of the fourth priority
5- The risk factor is of fifth priority
6- The policy on interest distribution is of sixth priority

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