

# A Review on the Hierarchy of Investment Criteria and Variables

Nazneen Mammulal Mujawar<sup>1\*</sup>, Dr. Kailash Chand Sewal<sup>2</sup>

<sup>1</sup> Research Scholar, Sunrise University, Alwar, Rajasthan

<sup>2</sup> Associate Professor, Sunrise University, Alwar, Rajasthan

**Abstract** - Young entrepreneurs face significant barriers when trying to get access to funding from venture capital sources. In order to attract the attention and funding of venture capitalists, company owners must provide compelling business plans. To this end, the company takes into account the investment requirements of venture capital firms. Without a doubt, entrepreneurs place a high value on investment criteria; however, it is also important to investigate which investment criteria is more important than others, so that entrepreneurs can prioritize and analyze the most crucial criteria. The purpose of this research is to identify the variables and/or factors most valued by India's venture capital providers when making investment decisions. In this paper discuss the criteria and variables of hierarchy of investment.

**Keywords** - Hierarchy, investment, criteria, variables

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## INTRODUCTION

The standards by which investors evaluate, forecast, investigate, and evaluate practises Doing is the working definition of investment behaviours. Formulation of decisions This encompasses aspects like as research, data collection, definition, and comprehension, as well as the psychology of investing. In addition, analysis. The world of traditional finance has long subscribed to the idea that investors are logical beings who avoid taking unnecessary risks. In addition to this, it asserts that the level of risk that investors are willing to tolerate is rather consistent and that individuals will only accept increasing levels of risk if they are promised acceptable returns. Various Investors' Strategies for Putting Their Money into Various Materials 2.2 Process-Levels of the Investment Process The Process of Investment The process of making an investment can typically be broken down into four steps. Investment policy, investment analysis, bond valuation, and portfolio construction are all aspects that fall under this category.[1] An investment can be thought of as any property or thing that is purchased with the intention of producing an income worth.... For instance, an investor might decide to pay cash for a piece of real estate right now in the hopes that the asset would produce returns in the future or that it can be resold at a better price, resulting in a profit. Basic behaviours can be broken down into three distinct categories of risk options: risk neutrality, risk search, and risk aversion. Each of these categories refers to a different attitude toward taking risks.

These kinds indicate the amount of risk that is considered to be acceptable in most situations. [2]

The risk is varied because of the anticipated return; the risk represents the likelihood of either success or failure. A participant's risk preferences can be tested through the use of experiments with real effects or through motivated games. An examination of the many techniques for determining an individual's level of comfort with taking risks reveals that the method that is most appropriate for the job is contingent on the inquiry being pursued as well as the participants being studied. q is calculated by dividing the current market value of all enterprises by the average cost of alternative forms of capital. When q is high, the market price of companies is higher in comparison to the alternative cost of capital. Additionally, the cost of capital for purchasing new plant and equipment is lower in comparison to the market value of the companies.[3] After then, businesses are able to raise capital by issuing shares, using the proceeds to pay for the infrastructure and resources they acquire. Can negotiate a more favourable pricing in comparison to. As a consequence of this, the costs of investments will go up because businesses are now able to purchase a large number of brand-new investment products using only a modest amount of newly issued shares. In general, while making choices regarding real estate investments There are other justifications that can be used as well. The term "investment decision" refers to the choice that the

top management of a company makes on the quantity of money that will be used by investors or investment opportunities. Investment choice refers to the process whereby a firm chooses the categories of assets in which it will invest its capital.[4]

## INVESTMENT

Putting money into something with the expectation of seeing a return in the form of increased value, increased profits, or more premium income is what we mean when we talk about investing. Sponsoring organisations direct their resources either toward direct or indirect investments. Investing is both an art and a science, and as such it has its own set of laws and criteria. To be able to assist one in deciding what investment opportunity is best among the many available options, one needs knowledge that has been carefully considered and insight that is grounded in reality. It is necessary to have knowledge and data on the investment cycle, risk spread, and return rates, among other things, in order to have a good investment portfolio.[5]

This cycle of mindfulness is a persistent one, and its practitioners would benefit from the market so long as they adhere to it; yet, it would be prohibitively costly to acquire such awareness the hard way, via a series of unfortunate experiences. The Reserve Bank of India, which is India's central bank, along with other regulators such as the Security and Exchange Board of India (SEBI), the Insurance Regulatory and Development Authority of India (IRDA), and the National Stock Exchange (NSE) have been coordinating investment awareness projects to spread information and awareness regarding investments.[6]

The investors' investing savvy is moulded, raged, normed, and brought into performed mode by a variety of outside social mediums, including print and electronic media, investment gurus, and partners.

The inclination of investment roadways was continually persuaded by a variety of components that outlined what financial backers desire and do not want. Monetary Institutions try to improve their monetary products by catering more closely to the preferences of their financial supporters and eliminating characteristics that customers find less appealing. In light of the fact that these characteristics play a big role in the dynamic interaction, the elements that financial backers take into consideration while making an investment choice are those characteristics. The perspectives that are used by the financial backers when selecting the investment instrument are standard and uncomplicated. This is despite the fact that every investment road has its own unique nature, characteristics, and behaviour. It is important to keep in mind that the importance that financial supporters attach to various points of view may differ depending on factors such as their age, marital status, and

sexual orientation in order to achieve the goals they have set for their investments.[7]

The creation of reserve money is the consequence of having additional income available for consumption, serious usage, and the fulfilment of legal obligations. The pay level of individuals, the number of wards, the total family pay, the individuals' degree of experience and their level of awareness are significantly associated with the investment funds of the people. Investment money are considered to be acceptable finances since they are liquid and may be accessed when necessary. There is a possibility that investment money might assist in satisfying the immediate or momentary requirements. If the reserve funds that are retained are not contributed, they are of little use in meeting the needs of the future. This is especially true when the time frame is lengthy and the situation is subject to both growth and financial slumps.[8]

Investing, on the other hand, is for the purpose of accumulating wealth and concentrating on long-term requirements. Despite the fact that investments involve a higher level of risk, they also provide much higher returns when they are allowed to sit undisturbed and monitored for a period of time that is sufficient to weather the volatility of the financial market. The maximum amount of investments that a financial supporter is able to make may be determined, in part, by looking at investments that have been converted from reserve money. The purpose of this inquiry is to identify the effects on transaction of the various mental processes pertaining to reserve money and their preeminence. Furthermore, it analyses the link between investment characteristics and saving intentions, as well as the consequences of this association.

In a country that relies heavily on agriculture like India, individual investments play a vital role in the economy, which is necessary for the nation's growth and development. In general, India prefers to maintain an extraordinarily high rate of savings. In the 2011 fiscal year, it was somewhere around 34 percent, of which family investment funds accounted for somewhere around 11.8 percent of the total monetary resources. According to the findings of a study that was carried out in 2008 by the National Council for Applied Economic Research (NCAER), it was discovered that despite the fact that Indians have an encouraging outlook toward expanded reserve funds, approximately 65 percent of reserve funds are put resources into banks or mail centre stores and money at home, 23 percent are put resources into land and gold, and only 12 percent are put resources into monetary Instruments. This was found despite the fact that Indians have an inspirational perspective toward expanded reserve funds.

## **ANALYTICAL HIERARCHY PROCESS (AHP)**

The Analytical Hierarchy Process, sometimes known as AHP, is a method of applying mathematics to the solution of problems that gained widespread acceptance among management experts in the late 1990s and early 2000s. After first gaining a grasp of the structure of an issue as well as the true challenge that managers confront while attempting to solve it, the AHP technique was developed. In this article, the structure has been broken down into its component parts.[9]

## **USE THE ANALYTICAL HIERARCHY PROCESS (AHP)**

In spite of the fact that the AHP is one of the most cutting-edge methodologies now accessible in the management science and operations research fields, the intricacy required in using this instrument makes it challenging to put into practise. Thankfully, software tools have been developed that can automate the labor-intensive portion of the mathematics. The user is required to adhere to a straightforward technique of data collection, which is subsequently entered into the tool in order to get the desired results.[10] The steps to follow in order to accomplish the same goal are as follows:

### **Step 1: Define Alternatives**

The first step of the AHP process is to define the different options that will later be examined. These several possibilities might represent the various criteria that are used to the evaluation of potential solutions. It's also possible that these are the many aspects of a product that need to be weighed in order to have a better understanding of how the client feels about it. At the conclusion of the first phase, a detailed list of all the options that are at your disposal must be prepared.[11]

### **Step 2: Define the criteria and the problem**

The next thing to do is to model the issue. The AHP technique defines an issue as an interconnected group of subproblems to be solved. As a result, the AHP technique depends on decomposing the issue at hand into a set of progressively more manageable issues. In the course of deconstructing the primary issue into its component parts, criteria for judging the solutions will become apparent. On the other hand, just as with root cause analysis, one might continue to go further and deeper into the issue at hand. It is up to the individual to make the decision on when to cease breaking the issue down into smaller subproblems.[12]

Consider the following scenario: a company must choose the most advantageous form of investment out of gold, silver, stocks, and bonds. If the AHP technique is used, the challenge of finding the best investment will be subdivided into a number of

smaller problems such as safeguarding against losses, maximizing the possibility of gains, maintaining liquidity in the market, and so on. After that, each of these subproblems may be divided into even more specific issues, and this process can continue until the management team is satisfied that all of the necessary criteria have been met.[13]

### **Step 3: Determine the Order of Precedence for the Criteria Employing a Comparison Based on Pairs**

The matrix that is created by the AHP approach is based on comparisons between pairs. For instance, the company will be asked to evaluate the relative significance of safeguarding against a decline and maintaining enough cash. After that, there will be a pairwise comparison between liquidity and the possibility of appreciation in the next matrix, and so on and so forth. It is anticipated that the managers would fill in this data in accordance with the requirements specified by the end consumer or the individuals who are going to utilise the procedure.[14]

### **Step 4: Check for Consistency**

The majority of software programmes that assist in solving AHP issues already have this phase built in. If, for example, I were to state that liquidity is twice as essential as protection from downfall, and then in the next matrix I were to say that protection from downfall is half as important as chance of appreciation, then the following scenario would occur:[15]

Liquidity = 2 (Protection from downfall)

Protection from downfall =  $\frac{1}{2}$  (Chance of appreciation)

Therefore, Liquidity must equal chance of appreciation.

However, if in the pairwise comparison of liquidity and chance of appreciation, if I have given a weight of more or less than 1, then my data is inconsistent. Inconsistent data gives inconsistent results; hence prevention is better than cure.

### **Step 5: get the relative weights.**

The mathematical computation will be carried out by the software instrument based on the data, and proportionate weights will be assigned to the criterion. After the equation has been prepared with the relevant weighted criteria, one is able to assess the available options in order to choose the one that best meets their requirements.[16]

## **HIERARCHY OF INVESTMENT**

The Multi-Criteria Analysis, often known as MCA, is an extremely helpful tool for a broad range of applications. It is used in decision-making by using a methodical and organised approach. When there are numerous different paths that might be taken to achieve the objectives, it is used to ascertain the general preferences of the population. MCA came into being as a decision-making tool in the 1960s and has since been used in both the ex-ante and ex-post evaluations of many projects. The method is used in situations in which the approach based on a single criterion is insufficient. It makes use of a variety of strategies that enable comparisons and hierarchies of the many options, as well as how they are assessed, which in turn conditions the choice that is made. Alternatives (options), criteria, score, weight, and performance matrices are some of the fundamental ideas behind this methodology. Alternatives are alternative project ideas, each of which has a distinct purpose that reflects the target that is being sought for financing. These are the means by which the objectives may be accomplished, with the most desirable alternative being the one that gets the most near to realising the objectives.[17]

In order to ascertain the degree to which each of these alternate courses of action contributes to the realisation of goals, we analyse and contrast them based on a set of criteria that each takes into account a number of important facets and might be qualitative or quantitative in nature.

## VARIABLES

We provide a description of the following factors for which we questioned venture capitalists and requested that they give (totaled) information on either their investments or themselves. [18]

1. **AGE:** Age addresses the age of the venture capital firm in the year 2001 (or time passed since the VC raised his first asset); **AFFILIATION** is a fake variable equivalent to 1 if the venture capitalist has an association to a monetary or non-monetary organization (else it is equivalent to nothing);
2. **REGIONAL:** Regional is a fake variable equivalent to 1 if VC just puts resources into his own nation (or in own State for the US respondents) and vicinity (0 in any case);
3. **COMPANIES :** Companies addresses the quantity of organizations at present in the venture capitalist's portfolio;
4. **SIZE:** Size is the normal size of investments done (in million EUR (for European respondents) or in million USD (for the US respondents)). Respondents additionally announced their present portfolio structure in level of ventures (not sum contributed).

Three expansive classes of stages (as utilized by EVCA) were thought of:

5. **EARLY\_STAGE** (for seed and start-up stages),
6. **LATER\_STAGE** (for advancement and development arranges just as for substitution and renegotiating stages)
7. **BUYOUT** (for the buyout stage).

Concerning venture capitalist's histories as far as leave, respondents were gotten some information about the sorts and number of ways out they had effectively done. For the generally accomplished ways out, venture capitalists gave further total data about planning of exit. Term addresses the normal investment length in years (from passage to full exit); **DUR\_EXIT** gives the normal span of leave stage in months (beginning when VC truly starts setting up his exit); and **DUR\_LIQU** is the normal length of liquidation measures in months (just for investments done on own mainland). At long last, the variable **SYNDICATION** addresses the level of past bargains that have been partnered with no less than one other venture capitalist, while **SYNDIC\_SIZE** gives the normal size of syndicates.[19] We additionally requested five pieces from data that intermediary the venture capitalist's contribution in the ventures: the variable **BOARD** addresses the level of ventures wherein VC has been available on the top managerial staff; **REPORTS** gives the normal number of reports mentioned from ventures each year; **ROUNDS** is the normal number of investment adjusts until exit (for as of now accomplished ways out); **CONVERTIBLES** gives the level of ventures wherein convertible protections were utilized; and the variable **REPLACE** gives the level of organizations wherein the previous business person was supplanted before the exit of VC.[20]

## CONCLUSION

The AHP technique is widely recognized as a powerful method for making multi-criteria decisions in accordance with the decision-maker's own preferences, which are evaluated using a predetermined scale. The method provides the decision maker with a hierarchical visual representation of the options and criteria, with the selection process's end goal at the top, followed by the main criteria, and finally the alternatives being considered. Using the relative Saaty scale, we compare each criterion to each alternative, and then we calculate the weights for each criterion. By doing so, the local priority of each alternative is determined, and then the global scores of the alternatives are calculated, taking into account the weights for the criteria, leading to a ranking in descending order of the global scores.

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## Corresponding Author

**Nazneen Mammulal Mujawar\***

Research Scholar, Sunrise University, Alwar, Rajasthan