

Analysis of capital budgeting decisions

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Abstract

Capital should be administered in effective way to achieve the desired results. Capital budgeting decisions are crucial to a firm's success for several reasons. Capital budgeting decisions are useful for the firm decision to invest its current funds most efficiently in the long term assets in anticipation of expected flow of benefits over series of years. Capital budgeting decisions require a long term commitment.

This paper focuses on analysis of capital budgeting techniques theory and practice and its impact on the investment decisions at the same time focused on evaluation practices.

Keywords: Capital budgeting techniques, Payback period, NPV, ARR, IRR

Introduction

An efficient allocation of capital is the most important finance function in the modern items. It involves decisions to commit the firm's funds to the long term. Capital budgeting decisions are of considerable importance to the firm since they tend to determine its value by influencing its growth, profitability and risk. The capital budgeting decisions of a firm are generally known as the investment appraisal, or capital expenditure decisions. A capital budgeting decision may be define as the firm's decisions to invest its current funds most efficiently in the long term assets in anticipation of an expected flow of benefits over a series of years.

Investor's behaviour

Investor's behavior refers to the selection, purchase and consumption of goods and

services for the satisfaction of their wants. There are different processes involved in the investor behavior. Initially the investor tries to find what securities he would like to consume, then he selects only that security that promise greater utility. After selecting the security, the investor makes an estimate of the available money which he can spend. Lastly, the investor analyzes the prevailing prices of security and takes the decision about the security he should consume.

Impact of Demographic Factors on Investors' Investment Decisions:

An investment is saving of current money and other resources for the future benefit. There are various investment avenues available for retail investors and depending upon ones' risk appetite, he/she can choose between bank deposits, government / private

bonds, shares and stocks, exchange traded funds (ETF), mutual funds, insurance, commodities, currencies, etc. Risk is an important factor to be considered while making an investment in the stock markets. This paper reveals that demographic factors have an impact on retail investors' investment decisions.

Consumer behavior is deeply influenced by cultural factors such as: buyer culture, subculture, and social class.

Culture:

Basically, culture is the part of every society and is the important cause of person wants and behavior. The influence of culture on buying behavior varies from country to country therefore marketers have to be very careful in analyzing the culture of different groups, regions.

Social factors:

There are important factors affecting the consumer buying behavior. Age:-Age and life-cycle have potential impact on the consumer buying behavior. It is obvious that the consumers change the purchase of goods and services with the passage of time. Occupation:-The occupation of a person has significant impact on his buying behavior. For example a marketing manager of an

organization will try to purchase business suits, whereas a low level worker in the same organization will purchase rugged work clothes.

Psychological Factors:

There are four important psychological factors affecting the consumer buying behavior. These are: perception, motivation, learning, beliefs and attitudes.

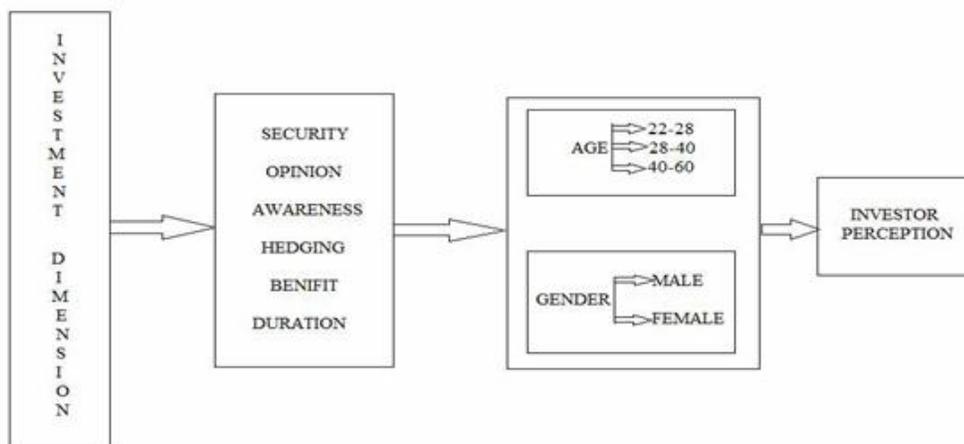
❖ **Motivation:** The level of motivation also affects the buying behavior of customers. Every person has different needs such as physiological needs, biological needs, social needs etc.

❖ **Perception:** Selecting, organizing and interpreting information in a way to produce a meaningful experience of the world is called perception.

Chi-square test:-

$$\text{Chi-square test formula} = \frac{(\text{Observed frequency} - \text{expected frequency})^2}{\text{Expected frequency}}$$

Let's say you want to know if there is a difference in the proportion of men and women who are left handed and let's say in your sample 10% of men and 5% of women were left-handed.



How it's Calculated (Without the gory details)

1. You collect the data. For example, you ask 120 men and 140 women which hand they use and get this:

Actual Data	Left-handed	Right-handed
Men	12	108
Women	7	133

2. Calculate what numbers of left and right-handers we would expect IF men and women were the same.

In this case, IF men and women were equally left and right handed, we would have expected these numbers in our sample of 260 people (Ask if you want to know how this is done):

Expected If No Difference	Left-handed	Right-handed
Men	8.77	111.23
Women	10.23	129.77

3. The computer calculates a Chi-square (pronounced Ki-square) value. The Chi-square value is a single number that adds up all the differences between our actual data and the data expected if there is no difference. If the actual data and expected data (if no difference) are identical, the Chi-square value is 0. A bigger difference will give a bigger Chi-square value.

Options	Observed Frequency	Expected	O-E	(O-E) ²	(O-E) ² /E
Male	35	31.5	3.5	12.25	0.39
Female	28	31.5	-3.5	12.25	0.39
Total	63				0.78

4. Look up the Chi-square value in a table to see if it is big enough to indicate a significant difference in handedness of males and females.

Interpretation

Greater differences between expected and actual data produce a larger Chi-square value. The larger the Chi-square value, the greater the probability that there really is a significant difference.

1. Gender

Options	Number of Respondance	Percentage
Male	35	55.55%
Female	28	44.44%
Total	63	100%

Null Hypothesis H₀ : Gender and investor perception about stock market is not independent.

The expected frequency of 2 options is 63/2 =31.5.

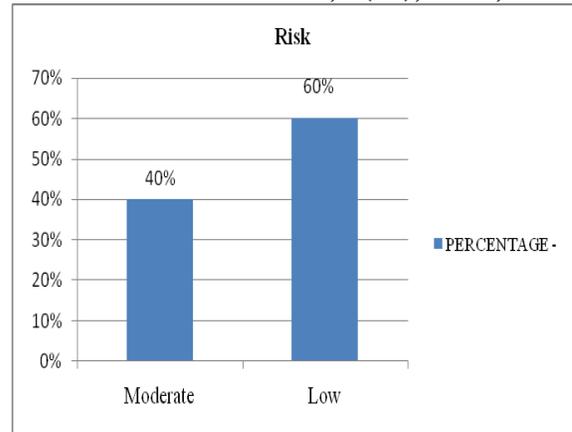
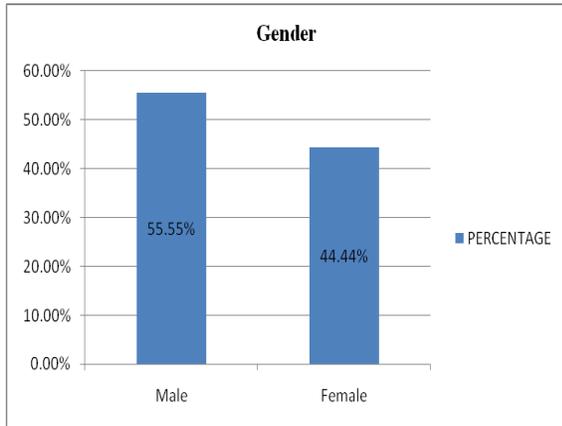
ANALYSIS:

Calculated $\chi^2 = 0.78$

The number of degrees of freedom = n-1=2-1=1

The tabulated value of χ^2 for 5 degrees of freedom at 5% level=3.841

Since calculated $\chi^2 <$ tabulated χ^2 , we reject the null hypothesis H₀.



From the above analysis it can be inferred that the majority of the male's i.e.55.55% are interested to invest their amount in stock market than the females. There is a greater difference between expected and actual data. So, the perception of the gender regarding the stock market is independent.

2. Tolerance for risk is

Options	Number of Respondance	Percentage
High	0	0
Moderate	25	40%
Low	38	60%
Total	63	100%

Null Hypothesis H_0 : Investors are feeling more risk in stock broking
 The expected frequency of each option $63/3=21$.

ANALYSIS:

Calculated $\chi^2 = 35.76$

The number of degrees of freedom = $n-1=3-1=2$

The tabulated value of χ^2 for 5 degrees of freedom at 5% level=5.991

Since calculated $\chi^2 >$ tabulated χ^2 , we reject the null hypothesis H_0 .

From the above calculated tests, I can infer that there is a significant relationship between risk and investor's investment decision. Whereas maximum i.e., 60% of the respondents are feeling low risk and 40% of the respondents are feeling moderate risk. The investor's doesn't feel more risk towards the stock broking investment.

Options	Observed Frequency	Expected	O-E	(O-E) ²	(O-E) ² /E
High	0	21	21	441	2
Moderate	25	21	04	16	0.76
Low	38	21	17	289	1
Total	63				35.76

Conclusion

In this study, different demographic variables are considered and its effect on decision making behavior in a risky situation. The direct effects of these demographic factors on risk perception and propensity ultimately on risky decision making have been established in this study. This study covers that old age investors have more risk perception and younger perceives the risk differently. Gender effects the decision in a manner that females have less

risk preferences than males and thus affects the risky decision-making behavior negatively and are reluctant to take risky decision.

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