

# Analysis of Capital Budgeting Practices in Indian Software Companies

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## ABSTRACT

The Indian corporate sector is looking forward to such investment avenues where they can get competitive advantage over the other related rivals and the incorporation of business needs a high volume of investment and this investment is irreversible in nature. As far as the capital budgeting decisions are concerned they are for long term and very closely associated with performance of the respective company. In the routine course of business there are a number of investment proposals in front of the companies but it is the responsibility of the finance team that they take an intelligent decision and ensure that the rate of return in a particular proposal is not volatile for the company. In order to choose a financially viable proposal the finance team of the company is required to evaluate, re-evaluate and perform the comparative analysis between the proposals to select the best suited one. This selection procedure can be stated as capital budgeting. This study will try to comment on the capital budgeting decisions of Indian software industry and evaluate the process of appraising investment proposals.

**Keywords:** Capital Budgeting, company, evaluate, investment, Software, IT Industry.

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## INTRODUCTION

Being a developing economy India is going under a number of structural changes and is in the process of affecting the international market to a certain extent and getting affected to a great extent. India is expanding its operations in different countries and this is going to increase the risk for competing agencies. 2008 was the worst year for the international economic scenario, including India, as the recession in this period has wiped out the growth rates and affected the economy in an adverse manner. ESI (2015) after the announcement of industrial reforms in 1991 the entire major industries were opened for international players and even India had an opportunity to expand its operation in different countries.

Here it is important to mention that despite of these structural changes the growth rate of Indian economy and capital market was not stable and even the economic meters do not show a high temperature. Then in the starting year of 21<sup>st</sup> century, high growth rate was experienced in the Indian economy and this growth rate was due to increased level of exports and investments from FIIs. Again this growth was not consistent and in 2008 again there was a slowdown international economy, as stated above. In the present scenario the business portfolio of India is undergoing corrective treatment and the respective policy framework is trying to balance the turbulence in the economy. Specifically the corporate sector of India is facing the issues of uneven business cycles, volatile demand pattern, unpredictable strategies of competing economies, fluctuating inflation and even the policies of respective government. As it is visible from the media sources that there is a currency deflation of Indian rupee and to meet requirements of economic development and payments the cash reserve and forex reserve of the country is also diminishing. Apparently there is a fiscal deficit emerging in every next budget of the country. Considering the above mentioned issues, the corporate sector of the country is also facing the turmoil of economic imbalance and as a result profitability is shrinking and the overall market capitalization is not supporting the growth of industrial sector. Then on the other hand the debts are increasing and the level of risk is increasing in case of new investments.

The overall environment is unstable to a certain extent, in such a scenario there is a need to re-evaluate the ways and means of doing business.

### Capital Budgeting Practices

Indian corporate sector is looking forward to such investment avenues where they can get competitive advantage over the other related rivals. Incorporation of business needs a high volume of investment and this investment is

irreversible in nature. As far as the capital budgeting decisions are concerned they are for long term and very closely associated with performance of the respective company. In the routine course of business there are a number of investment proposals in front of the companies but it is the responsibility of the finance team that they take an intelligent decision and ensure that the rate of return in a particular proposal is not volatile for the company.

In order to choose a financially viable proposal the finance team of the company is required to evaluate, re-evaluate and perform the comparative analysis between the proposals to select the best suited one. This selection procedure can be stated as capital budgeting. On the basis of precise information processing and conversion of this processed information into profitable investment decision, we can divide the capital budgeting technique in two parts i.e. Discounted Cash Flow and Non-Discounted Cash Flow.

### ***Techniques of Evaluating Capital Budgeting Decisions***

All the available techniques of capital budgeting can be divided into following classes:

- ❖ Traditional Methods
  - Pay Back Period
  - Accounting Rate of Return
- ❖ Discounted Cash Flow Method
  - Pay Back Period Method (Discounted)
  - Net Present Value
  - Internal Rate of Return

This present study will investigate the impact of different organization related variable on the usage of capital budgeting process. The study will evaluate the NPV (*Net Present Value*), IRR (*Internal Rate of Return*) and current cost of capital in terms of IT and software industry in India.

### **Literature Review**

**Baker et al (2012)** Stated that in the last few decades, the process of taking investment decisions has changed a lot and it can be stated that till the last few years of 20<sup>th</sup> century non discounted technique was used for the decisions related to capital budgeting and the same has evolved to discounted cash flow and ARR method. This evolution has changed the thought process of the finance managers and made them more capable in taking such decisions. They also stated that Discounted Cash Flow method is not much popular in present times.

**Singh et al (2014)** stated that in the present times most of the finance managers are using the methods of Net Present Value and Internal Rate of Return as compare to other capital budgeting techniques. As far as Indian companies are concerned, they are in the practice of using Non- Discounted Cash Flow Technique in place of Discounted Cash Flow Technique. Then on the other hand there are some new ventures in the country who are considering the cost of capital as an important decision making tool.

**Yadav et al (2015)** stated that in India more than 77% of the finance managers are considering Net Present Value Method and there are only 8% of the companies who are in the process of using the actual data for the sake of assessing financial proposals. This variation is due to the lack of familiarity in the both the processes and stating outcomes of the selected portfolios.

**Bansal et al (2017)** stated that from the starting of 21<sup>st</sup> century Indian business is growing and developing on international fronts as a resultant more precise and modern methods of evaluation are used. In the present times not only financial components of a given proposal are evaluated rather many of the related non-financial components are also evaluated. These evaluations are considered good for the future health of the organization.

**More et al (2018)** conducted a study on the assessment of financial and non-financial success factors and stated that there are 13 such factors that are required to be evaluated before making an investment decision. These factors are common for all type of Indian industries. The broad categories of these factors are like social factors, technical factors, legalities, political agendas, strategic evaluations, etc.

### **Objective**

The objective of the study is to evaluate the Capital Budgeting techniques used in the Indian IT and software industry and performance of the same by the use of these techniques.

### **Hypothesis**

**H<sub>0</sub>:** There is no significant relationship between the size of the firm & age of business and capital budgeting technique used by it.

**H<sub>1</sub>:** There is a significant relationship between the size of the firm & age of business and capital budgeting technique used by it.

### RESEARCH METHODOLOGY

**Source of Data**

This study is based on secondary data to incorporate the authenticity and the researcher is trying to assess the techniques of capital budgeting and effect of the same on the performance of the firm in selected period of study.

**The major sources of data are as following:**

1. Record of selected companies for the said period of study
2. Major studies made in top institutions i.e. IIMs, IITs, etc.
3. Journal of Springer and Wileys
4. Governments reports on IT and Software industry for the said period of study
5. Other reports from different published and non-published sources.

**Type of Research Method**

The researcher has used exploratory research design, in this type of research the whole process independent on secondary sources of data and respective tools of analysis are applied on the same.

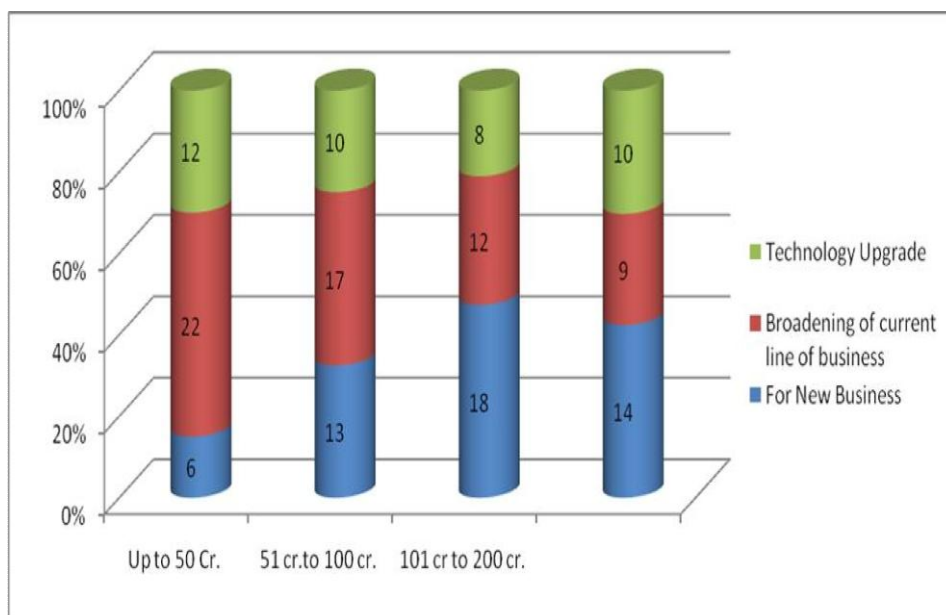
**Tools of Analysis**

1. Basic tools of descriptive statistics i.e. average, percentage, etc.
2. Kruskal-Wallis Test

### DATA ANALYSIS AND INTERPRETATION

**1. Type of Project and Budget Size**

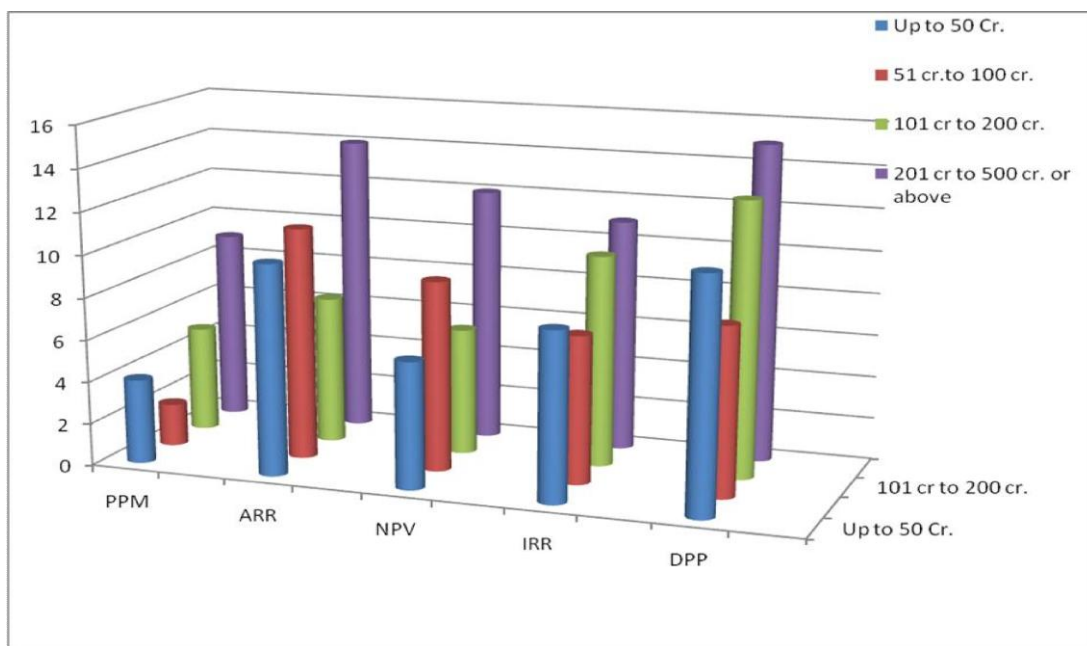
Type of Investment Project	Up to 50 Cr.	51 cr.to 100 cr.	101 cr to 200 cr.	201 cr to 500 cr.or above
For New Business	6	13	18	14
Broadening of current line of business	22	17	12	09
Technology Upgrade	12	10	8	10



**Interpretation**

As can be seen from the above table and chart that most of the companies are evaluating the investment proposals for new business and this is a fair result because software and ICT is a growing industry in India and most of the investors are ready to join this rising industry, directly or indirectly. Then on the other hand the project value for other type of components i.e. expansion and technology upgrade the maximum value of project is between 50 to 100 cr. in some case the value of project may be exceeded.

Technique of Capital Budgeting	Up to 50 Cr.	51 cr.to 100 cr.	101 cr to 200 cr.	201 cr to 500 cr. or above
PPM (Pay Back Period Method)	4	2	5	9
ARR (Accounting Rate of Return Method)	10	11	7	14
NPV (Net Present Value Method)	6	9	6	12
IRR (Internal Rate of Return Method)	8	7	10	11
DPP (Discounted Pay back Period method)	11	8	13	15



**Interpretation**

As can be seen from the above given chart and diagram, maximum number of selected companies have given preference to IRR (*Internal Rate of Return*) method of evaluating investment proposals, whereas only 10% of the total sampled companies have preferred NPV and IRR method of appraising new projects. Here it is important to mention that the preference of the companies is changing with the size of investment decision. If the size of decision is more than 500 cr. then the most preferred method are ARR and NPV and in case of investment decision of less than 500 cr IRR is used by the sampled companies. These results are in conjugation of the study made by **Harvey (2002)** which stated that IRR and NPV are the most preferred methods of appraising the investment decisions. Then the other methods like PPM and DPP are seldom used by the selected companies and these methods are generally linked with other techniques of IRR and NPV.

**Result of Kruskal Wallis test**

	Technique of Capital Budgeting						
Component	Result	PPM	ARR	NPV	IRR	DPP	PI
Size of Budget	X <sup>2</sup>	2.26	1.62	4.39	5.24	2.72	0.78
	Sign.	1.24	2.43	1.72	0.88	0.74	0.84
Size of Firm	X <sup>2</sup>	3.54	7.82	6.77	2.88	3.17	2.91
	Sign.	1.22	0.54	0.87	1.62	1.73	0.97
Age of Business	X <sup>2</sup>	4.22	2.82	7.61	5.82	3.29	4.41
	Sign.	0.76	0.11	2.53	2.08	1.61	1.23

As per the results of Kruskal Wallis test, it is clear that there is a significant relationship between NPV and DPP methods. For rest of the methods the results are insignificant i.e. they do not lie with the parameter of 5% level of significance. The above given test results are in relation to the previous studies of international level in different years. These results also approve that Discounted cash Flow is a preferred method in case of software industry, as in many of the previous studies this method was not approved by the experts. Other values lie beyond the significant level of 10% but then again the statistical significance of the same is not approved.

Then in case of size of the firm and age of business, IRR and NPV lie within the significant level of 10% and in rest of the cases the values are beyond the significance level. Here it is important to mention that the age of business can be exempted in some of the cases as most of the Indian software companies are established after 2005 and started to take individual assignment in the form of full-fledged company.

**Result of Hypothesis Testing**

As it is clear from the above given analysis and interpretation that in case of software industry the age of business is not a very important component, but then again size of business does matters, then on collective basis the null hypothesis *‘There is no significant relationship between the size of the firm & age of business and capital budgeting technique used by it’* can be rejected and alternate hypothesis can be accepted.

**CONCLUSION**

The scope of capital budgeting is very wide and cannot be assimilated in a single research paper so this present research can be put in the category of fact finding study for the listed software and IT companies of India. The result of the study state and the software industry in new and still in its growth stage, so in most of the cases age of the business is not considered while deciding on the capital budgeting decisions. Other than this size of the firm of the revenue is an important factor, that is being considered while deciding on the investment proposals. In the present times most of the companies are looking forward for a method that can cater more than one objective at a time and in this regard ARR and NPV are the best suited methods to decide on investment proposal, this approach will include more than one objective.

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