A STUDY ABOUT CAPITAL BUDGETING PRACTICES IN INDIA

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Capital Budgeting decisions have always been quite programmed due to their irreversible nature and their effect on the survival and growth of a company. But they have become more strategic as a result of liberalization and globalization. One of the innumerable changes that Indian Economy has experienced after liberalization and globalization was the entry of MNC's in Indian market. The competition is not only at the market place which is visible but it is also at the level of planning and control mechanism prevalent in the MNC's and their Indian counterparts which is invisible. Very little effort has been devoted to study the entire capital budgeting processes the corporate sector in India. The study examines the capital budgeting practices being followed by the selected companies in India.

CAPITAL BUDGETING

Generally there are four important decisions that should be taken by financial manager while performing his duties. These decisions are investment, Financing, liquidity and dividend decisions. Investment decisions are considered to be the most complicated and important decisions because the survival and growth of business depends to a large extent upon the fact as to how accurately these decisions are made. Investment decisions of a business are commonly known as capital budgeting or capital expenditure decisions.

NEED OF CAPITAL BUDGETING

(a) Whether or not finance manager should invested in long terms projects.
(b) Whether permanent assets such as equipments and building should be removed.
(c) To make financial analysis of various proposals regarding capital investments so as to choose the best out of may alternatives proposals.

TECHNIQUES OF EVALUATING CAPITAL BUDGETING DECISIONS

Geoffrey Moss quotes "Hard-nosed competition is the best assurance of a healthy business. Aim to exceed rivals in all facets of activity." One way to leave competitions behind is the efficient appraisal of the capital projects as these influence the growth, profitability and risk of business. In literature on financial management, the prominent methods of capital budgeting have been classified into two categories.

Traditional Methods	Discounted cash flow methods
(a) Pay Back Period	(a) Discounted Pay back period method
(b) Accounting rate of return	(b) Net Present value
	(c) Internal rate of return.

OBJECTIVES OF THE STUDY

The major objective of the study is to examine empirically the capital budgeting practices being followed by selected companies in India and to identify the financial objectives followed by the co's and to determine their priority.

METHODOLOGY

The data was collected from both primary and secondary sources for collecting primary data, a pre-tested questionnaire was mailed to 54 companies. The secondary data was collected from Bombay

stock exchange directory, January 2009. The data has been analysed by using weighed average score (WAS) and chi-square test.

Distribution of the Sample Companies on the Basic of Industry Group (Table 1)
Industry Wise Distribution of Sample

Industry Group	No. of Companies	Percentage of Companies
(i) Electronics, Electric equipment and cables	9	16.7
(ii) Investment and finance	3	5.5
(iii) Cotton spinning	2	3.7
(iv) Synthetic fibers, silk and wollen	2	3.7
(v) Metal alloys, metal products	4	7.4
(vi) General engineering	8	14.8
(vii) Chemical dyes, pharmaceuticals, refineries plastics	8	14.8
(viii) Miscellaneous	18	33.3
Total	54	100

Note:- Units of trading (2), cement (1), cotton, spinning and weaving mills (1), paper, pulp and hard board (1), sugar and breweries (2), food products (1), tea plantations (1), aluminum (1) have been clubbed under miscellaneous industries.

Distribution of sample on the basic of size as measured by paid up capital
(Table 2)
Distribution of Companies : Size of paid up capital (Rs in crores)

Paid up capital	No. of companies	% of companies
Less than 5	16	29.6
5-20	25	46.3
More than 20	13	24.1
Total	54	100

Distribution of Sample on the Basis of Sales Turnover
(Table 3)
Distribution of Companies : Sales Turnover wise (Rs. In crores)

Sales	No. of Companies	Percentage of companies
Less than 120	14	25
120-300	27	50
More than 300	13	25
Total	54	100

HYPOTHESIS :-

The following null hypothesis were framed and tested.

HO_1 The companies aim at achieving multiple financial objectives.

HO_2 The nature of the industry and size of company have no effect on the selection of the particular method of evaluating investment proposals.

FINANCIAL OBJECTIVE MAY BE:-

On the basis of review of empirical research and theoretical literature on finance, the following financial objectives were identified.

(1) Book value of net worth
(2) Market value per share
(3) Cash flow per share
(4) Operating profit before interest and taxes
(5) Price earning ratio
(6) Market rate of return
(7) Return on investment
(8) Net profit margin
(9) Market share
(10) sales

The respondent companies were asked to rate each objective on a five point scale (very significant- very insignificant) the weights were assigned as follows.

Very significant	5
Significant	4
Neither significant nor insignificant	3
Insignificant	2
Very insignificant	1

LIMITATIONS OF STUDY :-

- The sample may not represent the whole population.
- Subjectivity involve in the study.
- Paucity of time and resources led to the inability of conducting a large survey.

ANALYSIS OF DATA :-

The data have been analysed by using a number of statistical techniques such as weighted average score (WAS) and chi-square test.

I. $WAS = \sum \frac{RiWi}{N}$

Ri = No. of respondents assigning rating to a financial goal.
Wi = weight assigned to rating (i)
i = Different level of rating ranging from very significant to very insignificant.
N = Total number of respondents.

II. χ^2 is calculated through following formula

$$\chi^2 = \frac{\sum(oij - Eij)^2}{Eij}$$

Oij stands for observed frequency of the cell in the raw and jth column and
Eij stands for expected frequency of the cell in the ith row and jth column.

Degree of freedom (Df) is having an important part in applying the chi square distribution is calculated in contingency table follows :

Df = (c-1) (r-1)

C = no. of columns

R = no. of rows.

Table 4
Relative Significance of Financial Goals

Goals	No. of Responses	Very Significant	Significant	Moderate	Insignificant	Very Insignificant	Mean Score	Standard Deviation
1	2	3	4	5	6	7	8	9
Book Value of net worth	53	25 (47.2)	9 (16.9)	11 (20.8)	5 (9.4)	3 (5.7)	3.92	1.22
Sales	54	43 (79.6)	8 (14.8)	2 (3.7)	1 (1.8)	-	4.71	
Market Value of per share	53	12 (22.75)	13 (24.5)	13 (24.5)	8 (13.2)	7 (13.2)	3.30	1.30
Cash flow per share	53	26 (49.00)	14 (26.4)	10 (18.8)	2 (3.8)	1 (1.9)	4.18	1.00
Operating profit before interest & tases	54	35 (64.8)	12 (22.2)	4 (7.4)	1 (1.8)	2 (3.7)	4.39	1.03
Market share	52	23 (44.2)	16 (30.8)	10 (10.2)	2 (3.8)	1 (1.9)	4.13	0.97
Price Earining Ratio	53	11 (20.7)	12 (22.6)	19 (35.8)	5 (9.4)	6 (11.8)	3.28	1.21
Market rate of return	51	8 (15.17)	15 (29.4)	17 (33.3)	5 (9.8)	6 (11.8)	3.28	1.24
Return on investment	53	39 (73.5)	10 (18.8)	4 (7.5)	-	-	4.65	0.63
Net Profit Margin	54	32 (59.2)	14 (25.9)	6 (11.1)	1 (1.8)	1 (1.8)	4.38	0.94

Note:- Figures in Parentheses represent percentages.

Table 4 depicts the relative significance of financial goals as perceived by the respondent companies. It can be observed from this table that three top priority goals on the basis of mean score and standard deviation ‘Maximizing sales (WAS 4.71)’ Maximizing return on investment (WAS 4.65)’ and

Maximizing operating profit before interest and taxes (WAS 4.39)' have been perceived as the main financial goals by the companies in India. However, the financial goals of maximizing market rate of return (WAS 3.28)', Maximizing price-earning ratio (WAS 3.28), and Maximizing market value per share (WAS 3.30)' were among lowest preferred goals.'

Table : 5
Levels at which New Projects Originate and are screened

(N=54)

Level of Management	Organization	Screening
Top Level	47 (87.1)	48 (88.8)
Middle Level	18 (33.3)	15 (27.7)
Operational Level	9 (16.7)	4 (7.4)

Note : Figure in parentheses indicate percentages.

The data presented in Table 5 brings out the dominance of top management in origination and screening of new investment opportunities. Out of 54 respondent companies which had responded to this question, 47 respondents (87 per cent) mentioned that proposals originate at head office only. While one-third of new projects emanate at middle level followed by 17 per cent of the new ideas coming from operational level. It leads to the conclusion that the companies, in general, follow mostly top down approach in capital budgeting decisions.

Chi-square [Table 6 (a) and (b) test was applied to find out whether the size of paid up capital and sates turnover influence the basis upon which the companies decide about allocation of funds to various departments. The association between the size of paid up capital sales turnover and basis of selection for allocation of funds has been found to be insignificant at 5-per cent level of significance.

Table 6 (a)
Measures Used for Allocation of Funds to Different Departments: Paid up Capital-wise Classification

(N=54)

	Paid up Capitals		
	Less than 5 (N=16)	5-20 (N=25)	More Than 20 (N=13)
Priorities	15 (93.75)	16 (64)	11 (84.6)
Higher rate of return	12 (75)	16 (64)	12 (92.3)
Degree of urgency	13 (81.3)	15 (60)	10 (76.9)
Fair share or last year's budget plus a certain increment	4* (25)	2* (8)	-
Mutual consultation	5* (13.3)	8* (32)	2* (15.4)
Rule of thumb	-	-	-
Any other (specify)	3* (18.8)	3* (12)	1* (7.7)

Chi-Square = 3.8877
Insignificant at 5 per cent level of significant for 6 degrees of freedom.
Notes : 1. Figure in parentheses indicate percentage

2. Figure have been clubbed for calculating chi square values.

Table 6 (b)
Measures Used for Allocation of Funds to Different Departments : Sales Turnover-wise Classification

N(54)

	Sales Turnover		
Priorities	12 (80)	21 (80.81)	9 (69.2)
Higher rate of return	12 (80)	17 (65.4)	10 (76.9)
Degree of urgency	11 (73.3)	18 (69.2)	9 (69.2)
Fair share or last year's budget	5*	2*	-
Plus a certain increment	(33.3)	(7.7)	-
Mutual consultation	5* (33.3)	6* (23.1)	3* (23.1)
Rule of thumb	-	-	-
Any other (specify)	2* (13.3)	5* (19.2)	-

Chi-square = 3.4320.
Insignificant at 5 per cent level of significance for 6 degrees of freedom.
Notes: 1. Figure in parentheses indicate percentages.
2. *Figures have been clubbed for calculating Chi-square values.

Chi-square test of relationship is applied to find out the association between the use of various capital budgeting methods and the size of paid up capital and turnover (Table 7(a) and Table 7(b)) but it is found that there is insignificant association at 5 per-cent level of significance between the size of paid up capital and turn over and the techniques of pV31 uation of capital project used by the company.

Table 7 (a)
Capital Budgeting Methods: Paid up capital-wise classification

(N=54)

(Rupess in Crores)

	Paid up Capital		
Methods	Less than 5 (N=16)	5-20 (N=25)	More than 20 (N=13)
Accounting Rate of return	5 (31.3)	5 (20)	5 (38.5)
Pay Back Period	8 (50)	16 (64)	5 38.5
Discounted Pay Back Period	4 (25)	4 (16)	3 (23.1)

Net Present Value	10 (62.5)	11 (44)	8 62.5
Internal Rate of return	11 (68.8)	20 (80)	9 (69.2)
Others	-	-	-

Chi-Square = 3.6754
Insignificant at 5% level of significance at 8 degrees of freedom.
Notes : 1. Figures in parentheses indicate approximate percentages.

Table 7 (b)
Capital Budgeting Methods : Sales Turnover-wise classification

(N=54)
(Rupees in Crores)

	Paid up Capital		
Methods	Less than 120 (N=16)	120-130 (N=25)	More than 300 (N=13)
Accounting Rate of return	3 (20)	8 (30.8)	4 (30.8)
Pay Back Period	10 (66.7)	12 (46.2)	6 (46.2)
Discounted Pay Back Period	2 (13.3)	5 (19.2)	5 (38.5)
Net Present Value	8 (53.3)	13 (50)	8 (61.5)
Internal Rate of return	11 (73.3)	20 (76.9)	9 (69.2)
Others	-	-	-

Chi-Square = 3.5064
Insignificant at 5% level of significance at 8 degrees of freedom.
Notes : 1. Figures in parentheses indicate approximate percentages.

REASONS FOR USING TRADITIONAL METHODS OF CAPITAL BUDGETING

Since a large number of respondents were using the traditional methods specifically 'Pay Back Period'. Hence, it was thought proper to investigate the reasons for using such methods Table 8 depicts the reasons for using traditional method as

Table 8
REASONS OF USING TRADITIONAL METHODS OF EVALUATION

N=41

Reasons	Number of Responses
(a) Shortage of liquid funds	4 (9.8)
(b) Obsolescence due to technological developments	9 (22)
(c) Easy to calculate	15 (36.6)
(d) Easy to explain to top management	19 (46.3)
(e) Any other reason (specify)	6 (14.6)

Notes:- 1. Figures in parentheses indicate approximate percentages.
2. The respondents are giving more than one reasons at a time.

The above table reveals that about 46% of the respondents consider "easy to explain to the top management as the reason for using traditional methods followed by easy to calculate, obsolescence due to technological developments.

REASONS FOR USING DISCOUNTED CASH FLOW TECHNIQUES

It is usually said that DCF methods are better than traditional methods of capital budgeting. So, question was included in the questionnaire of DCF methods from the companies in India. The responses have been shown in Table 9.

Table 9
Reasons of Using Discounted Cash Flow Method of Evaluation

(N=51)

Reasons	No. of Responses
Compel companies to look ahead	7 (13.7)
Take into consideration the time value of money	39 (76.5)
Consider the total benefits entirely during the life-time of project	25 (50)
Use in case of projects involving huge outlay	10 (19.6)

Notes :- 1. Figure in parentheses indicate approximate percentages.
2. The respondents are giving more than one reason at a time.

The above table reveals that about 77% of companies consider time value of money as the most important reason for using discounted cash flow techniques as a method for evaluating capital decisions.

FINDINGS :-

1. It has been found that the companies are postulating multiple financial objectives while making decision about capital projects. Hence, the first null hypothesis has been accepted, the assumption of pursing the single financial objective has been refuted by this study.
2. Goals having market related variables such as maximizing of marke rate of return, 'Price earning ratio' and 'Market value per share are the least preferred.'
3. The new investment opportunities originate and are screened first at top level only in case of majority of the respondent companies.
4. Internal rate of return is the most popular techniques of evaluation of capital projects followed by pay back period and net present value.
5. The companies belonging to various industries are applying more than one technique of evaluation.
6. The results of this study were compared with other studies carried out in India. This comparison has led to the conclusion that the findings of this study are broadly in consonance with these studies.

CONCLUSION :-

The present study is mostly a fact finding research on capital budgeting practices being followed by the companies in India. It indicates that present capital budgeting practices being applied in the companies in India are coming by and by on the international lines. The findings of the study can be of best use to the Government, financial institutions, merchant bankers, corporate sector, researchers and investing public at large. The Government, financial institutions and merchant banker can introduce changes in industrial and investment policies for better industrial climate in India. The companies can employ these findings for better financial management. The sick units in the corporate sector can apply such findings as guidelines for improving their financial as well as operating efficiency by effective fixed investment decisions in future. It may be of immense help to the general investing public at the time of investment in a company so that they can know, how their funds will be put to use by the company.

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