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Abstract

Capital budgeting is essential for the growth of shareholder wealth because it depends on the executive level in a firm who take capital budgeting decisions and enhance the shareholder value and profitability of the corporate. The truth regarding capital investment appraisal is that this process identifies the loopholes that can be eliminated during the period the decisions are taken which will help an enterprise to invest in plant and machinery and sales together to influence and enhance the operating income of a firm’s shareholders and the company at large.

It is obvious that investments need a proper appraisal. Depending upon whether a project generates positive cash flows or negative, a project is accepted or otherwise rejected. The present study attempts to analyze the impact of different capital budgeting decisions on financial performance of small and medium enterprises. The results showed that the repetitive use of Payback period method by different firms is the result of its simplicity to use. This paper also indicated the importance of small and medium enterprises in the contemporary world. The study took into consideration the data regarding different schemes approved, capital funds allocated and the number of production units benefitted. Frequency of using different capital budgeting techniques by different listed enterprises was also analysed. At the end of the paper are some of the suggestions that will help to improve the profitability of different enterprise and in the long run will prove fruitful for effective decision making.

Keywords: Investment, Growth, Discount rate, Capital, Enterprise, Payback, Profitability, Economy, and Shareholders

1. Introduction

With increasing and developing technological Know-how Businesses are entering and heading towards high Competition. New Market trends of earning, new management agendas, changing government policies towards private Sectors and above all changing economic policies in terms of charging high tax rates, increasing prices etc is influencing the behaviour of the investors to make their investments in such a pattern so as to lower down the risk and uncertainty associated with their future investments. Investors have to take number of decisions for Safeguarding and scrutinizing their investments. Capital Budgeting Decisions are one of those decisions that are taken by the investors in order to manage and appraise their investments. Capital Budgeting Proposal begins from an idea, after which a road map is prepared which provides the necessary things and strategies for investment depending upon the size of the proposal. Some proposals have a large time period, where as others have a limited time gap i.e. two to three years. This identification of the time gap, budgeted funds, determination of the rate of return, a discount rate etc, from a particular project-
all of these comes under the ambit of Capital Budgeting where the prospects of investments in plant and machinery, new projects, new products, expansion of the existing operations, and further research and development is realised. Thus, Capital Budgeting is a part of financial management that tells us about the accepting and rejecting of an investment Proposal, that is, whether to invest in assets for a long term time period or not. The process of capital budgeting includes the following:

- There is a search in finding out the most profitable projects for investment.
- The available capital funds are invested in the proposal (in more than one projects can be invested at a time).
- Accepting or rejecting a proposal is done. The effects in both cases are found out.
- Profitability analysis of different projects at each stage, and last but not the least,
- Project performance and completion.

2. Different types of Capital budgeting Decisions.

There are various types of capital budgeting decisions that business enterprises take for the purpose of the investment evaluation;

1. **Payback Period:** To undergo a project there is the need of an initial investment (funds) for the procurement of raw material and other essential items. This is a very simple method and a decision tool. The main motive behind this method is to calculate the number of years in which the initial invested funds in a business come back. Consider the following example:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost of the Project</th>
<th>Earnings</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
</tr>
<tr>
<td>Second Year</td>
<td>8000</td>
<td>14000</td>
<td>26000</td>
</tr>
<tr>
<td>Third Year</td>
<td>12000</td>
<td>26000</td>
<td>38000</td>
</tr>
<tr>
<td>Fourth Year</td>
<td>12000</td>
<td>38000</td>
<td>50000</td>
</tr>
<tr>
<td>Fifth Year</td>
<td>10000</td>
<td>50000</td>
<td>60000</td>
</tr>
<tr>
<td>Sixth Year</td>
<td>10000</td>
<td>60000</td>
<td>70000</td>
</tr>
</tbody>
</table>

**Solution:**

Observation of the above table after calculating the cumulative frequency showed that the initial investment of the project that is Rs 48000 will be recovered in the 5th year. Therefore, the Payback Period of this Project = 5 Years.

The another example of calculating payback is if you are planning to buy a candle machine that costs Rs 1,00,000 and, is generating a cash flow of Rs 20,000 a year, the payback will be five years. i.e. 1,00,000 divided by 20,000 = 5 years.

2. **Net Present Value:** Another investment appraisal method for evaluation of a project is calculating or determining the difference between the cash inflows and cash outflows that are generated from a project. At a specific discount rate the likely cash inflow from a project at various periods of time are discounted. With the initial investment, present values of the cash inflow are associated and compared to the initial invested funds. If their difference is found to be positive and progressive (+), then it is accepted or otherwise rejected. NPV is basically a discounted cash flow technique which identifies the time value of money.

\[
\text{NPV} = \frac{A_1}{(1+k)^1} + \frac{A_2}{(1+k)^2} + \ldots + \frac{A_n}{(1+k)^n} - C
\]

Source: Article by EduPristine [2]

Where A1, A2… Denotes the pattern of cash inflows per interval (year), K indicates the firm’s cost of capital, C is the cost of the project and n is the predictable life of the project. It must be noted that the cost of capital, K, is supposed to be known, otherwise the net present, value cannot be known.

3. **Internal rate of return:** It is characterised as the rate at which the present value of the initial investment of the project becomes zero. It is a discounted cashflow method. It aids the professional executives to know whether an investment under evaluation will enhance the firm’s value or not. IRR contemplates all cash flows of the establishment (project) and takes into account the time value of money. In case of IRR if the internal rate of return is greater than the opportunity cost of capital then, we
will accept the project. This technique specifies the actual return of separate projects. It is a good scheme for grading projects.

Formula for calculation of internal rate of return:

\[
B1 - B0 = 1 + r \frac{B0}{B0}
\]

Where,
- \( B1 \) = single cash flow after a one year time period.
- \( B0 \) = investment
- \( R \) = rate of return

4. **Accounting rate of return**: A non-discounted cash flow criteria and an another technique of capital budgeting which uses and practices the financial and accounting data and information particularly the statistical information in order to bring out the profitability of an investment. ARR is being defined as the proportion of average profit after tax divided by average earnings or investment.

\[
ARR = \frac{\text{Average income}}{\text{Average investment}}
\]

**Source**: I M Pandey [3]

5. **Profitability Index**: A discounted cashflow and time adjusted evaluation criteria calculates the ratio of present value of cash inflows to the initial investment of cash with the help of a required rate of return.

\[
PI = \frac{\text{PV of cash inlay}}{\text{Initial cash outlay}}
\]

**Source**: I M Pandey [4]

### Benefits of new Project Investments

Starting a new project demands the procurement of funds. After its operational work the following things come into existence.

- Site (Land) for the project.
- Machinery to be used for production.
- Raw Material to be brought for production purpose in the concerned project.
- Employees to be employed in the project.
- Use of labour.

The above mentioned points are essential for starting a project. When these things will be put into practice, they will generate number of benefits that will help the entrepreneurs and new beginners. Some of the benefits are mentioned in below paragraph.

- Employment generation
- Increased wages for labours.
- Increased Productivity
- Better use of borrowed funds
- Security analysis of each and every activity in the project.
- Better project risk management
- Better Risk and Return evaluation.

### Areas where capital budgeting decisions are used

- In an organization when there arises the need for new assets.
- When the currently working assets get obsolete.
- When there is change in asset technology.
- In case a business firm particularly engaged in manufacturing process needs expansion of their routine operations.

### A Study of Jammu and Kashmir Business Enterprises

Over the past five decades Small and Medium Enterprises segment has been developed as an extremely energetic and active sector of the Indian economy. These enterprises (SMEs) are playing central role in providing huge occupational chances and opportunities at relatively lesser capital charges than great commerce, and also helps in mechanisation of rural & economically backward and weaker areas, thereby, minimizing regional and local imbalances, guaranteeing more justifiable circulation of national income and wealth. SME’s are matching to large industries as additional units and this sector pays hugely to the socio-economic development of the nation. Following table shows the definition of manufacturing units:

<table>
<thead>
<tr>
<th>Types of MSME's</th>
<th>Manufacturing / capital Investment</th>
<th>Service units/ Capital Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>25 lakh</td>
<td>10 lakh</td>
</tr>
<tr>
<td>Small</td>
<td>5 crore</td>
<td>2 crore</td>
</tr>
<tr>
<td>Medium</td>
<td>10 crore</td>
<td>5 crore</td>
</tr>
</tbody>
</table>

The sector of MSME’s grown-up from very marginal sector to one of the fastest developing sector in the country with the positive and other progressive
concerned approach of the government. This particular subdivision is one of the leading and prominent subdivisions in the country especially grown up with the motive of generating employment, leading the other remaining divisions which have been the largest sectors for employment generation from the past few decades. While, this SME’s division or sector is in the stage of positive progress and development and still it shows a potential which could be employed by the energetic style of the government to improve the economy of the nation. Besides employment generation by this manufacturing sector, it also contributes and subsidizes towards growing and enhancing manufacturing output, optimum resources and supply mobilization and utilisation and increasing the exports of the country. This developing division of an economy also helps in the process of social transformation and contributes to the corporate social responsibility of the nation. Government of the country is working days and nights in order to create a platform for the development of manufacturing enterprises. The following table shows some of the schemes created by the government of Jammu and Kashmir for entrepreneurial development. It also shows the budget allocated and the expenditure incurred.

**Different schemes for entrepreneurship development by establishment of SME’s and capital allocation budget and expenditure incurred.**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Scheme name</th>
<th>Budget allocated</th>
<th>Expenditure incurred</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>EDP</td>
<td>60000</td>
<td>59966</td>
</tr>
<tr>
<td>2.</td>
<td>IMC</td>
<td>56000</td>
<td>55821</td>
</tr>
<tr>
<td>3.</td>
<td>ESDP</td>
<td>378750</td>
<td>376877</td>
</tr>
<tr>
<td>4.</td>
<td>IPR</td>
<td>300000</td>
<td>299984</td>
</tr>
<tr>
<td>5.</td>
<td>TRAINING AIDS</td>
<td>99500</td>
<td>89013</td>
</tr>
<tr>
<td>6.</td>
<td>QMS/QTT</td>
<td>60000</td>
<td>59711</td>
</tr>
<tr>
<td>7.</td>
<td>TEQ UP</td>
<td>93750</td>
<td>17001</td>
</tr>
<tr>
<td>8.</td>
<td>VDP (SL)</td>
<td>150000</td>
<td>147735</td>
</tr>
<tr>
<td>9.</td>
<td>ZED</td>
<td>140000</td>
<td>117119</td>
</tr>
<tr>
<td>10.</td>
<td>SENET</td>
<td>471500</td>
<td>419300</td>
</tr>
<tr>
<td>11.</td>
<td>DESIGN CLINIC</td>
<td>60000</td>
<td>44976</td>
</tr>
<tr>
<td>12.</td>
<td>TOTAL</td>
<td>1867500</td>
<td>1687503</td>
</tr>
</tbody>
</table>


A total of 1867500 rupees were allocated for the development of SME’s. From this allocated amount the expenditure incurred was 1687503 rupees. This shows that the sector of manufacturing is heading towards progress. But, there is the need of heavy reformation in this sector in the process of production, because, unless and until we do not focus on using of new technological know-how, new production designs, and new methods of cost saving etc, we cannot achieve the milestone of developing the economy.

### 3. Review of Related Literature

*Cooper et al., (2001)* recognized that IRR and NPV are the prevalent Discounted Cash Flows techniques and in Fortune 500 corporations, in Corporate America, Payback period is still in use as project appraisal method. [6]

*Klammer, Thomas P. (1972)* measured a sample of 369 organisations from many manufacturing corporations that performed in major industry groups and it was analysed that the companies made up to Dollar 1 million of capital outflows in each of the five years. Some of the capital budgeting practices in use in the year’s 1959 upto 1970 were identified by different respondents. The results directed an increased and better use of methods that combined and improved the present value. [7]

*Gitman Lawrence G. et al. (1977)* examined the answers from 110 firms who answered to their survey of the 600 corporations. The survey comprised queries related to capital budgeting methods, the separation of responsibility for capital budgeting choices, the most important and most difficult stages of capital budgeting, the cut off rate and the risk assessment methods. They found that the discounted cash flow practices were the most widespread methods used for evaluating invested projects, mainly the technique of internal rate of return (IRR). Respondents also indicated that project definition and cash flow estimation was the most difficult and most critical stage of the capital budgeting process. [8]

*Kim Suk H. and Farragher Edward (1981)* graphed the Fortune 100 Chief Financial Officers about their usage of procedures for appraising capital budgeting projects. The study established that in many years, the majority of the firms and companies trusted on the use of DCF process (either the IRR or the NPV) as the prime technique and the payback as the minor method. [9]

### 4. Objectives of Study

1. To study about various techniques of Capital budgeting.
2. To study about various areas where capital budgeting decisions are used in SME’s.
3. To study the impact of various techniques on future prospects of manufacturing in J&K.

### 5. Research Methodology

The present study is descriptive in nature which is based on secondary data obtained from Ministry of Micro, Small and Medium Enterprises government of India. The study also took into consideration the methods of investment appraisal used by Indian SME’S. They have responded on a five point scale indicating the practices of capital budgeting mostly used and preferred. Besides this, for the purpose of achieving the objectives of the study a number of books, magazines, journals, newspapers and other
websites regarding capital budgeting theory were used for information.

6. Data Analysis and Interpretation

Table 1.

<table>
<thead>
<tr>
<th>Scheme</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>March '18</td>
<td>Upto March '18</td>
</tr>
<tr>
<td>1. Credit Linked Capital Subsidy Scheme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(I) No. of MSEs Benefitted</td>
<td>0</td>
<td>4081</td>
</tr>
<tr>
<td>(ii) Subsidy released (Rs. In Crore)</td>
<td>0.00</td>
<td>258.35</td>
</tr>
<tr>
<td>2. Credit Guarantee Scheme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(I) No. of Credit Proposal Approved</td>
<td>27756</td>
<td>26319</td>
</tr>
<tr>
<td>(II) Amount of Credit Guaranteed Approved (Rs. In crore)</td>
<td>2270.61</td>
<td>19065.94</td>
</tr>
<tr>
<td>3. Vendor Development Programme for Ancillaries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Units Participated</td>
<td>2820</td>
<td>1826</td>
</tr>
</tbody>
</table>

Source: Office of DC, MSME Govt of India. [10]

Interpretation

The above table is the data released by the Ministry of Micro, Small and Medium Enterprises, Government of India. The extracted data shows allocation of different capital funds as well as capital subsidy schemes for development of manufacturing firms. In March 2017, a total of 217.26 crore of funds were released under credit linked capital subsidy scheme, and the total budgeted amount released in March, 2018 were Rs 258.35 crores. This indicates an increase of 41.09 crore that were allocated for the growth of MSME’s. With the help of this scheme the number of MSE’s benefitted were 3407 in March, 2017 which increased to a total of 4081 upto March, 2018, thus showing a positive correlation between capital budget allocated by concerned government and the expenditure made by the SME’s operating in different states particularly in the state of Jammu and Kashmir. Under credit guarantee scheme, the capital approved was Rs 19931.49 crores, which consequently increased to 2270.61 crores in March 2018. For the development of small ancillaries the Vendor Development Programme was organized and under this programme a total of 18260 units of SME’s participated in order to get the expertise and perform functions under predetermined rules and regulations.

Table 2.

<table>
<thead>
<tr>
<th>Evaluation Technique</th>
<th>Not Used</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal rate of return</td>
<td>3 (11.1)</td>
<td>12 (44.4)</td>
<td>6 (22.2)</td>
<td>6 (22.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payback Period (PBP)</td>
<td>18 (66.7)</td>
<td>6 (22.2)</td>
<td>2 (7.4)</td>
<td>1 (3.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Present Value (NPV)</td>
<td>3 (11.1)</td>
<td>6 (22.2)</td>
<td>11 (40.7)</td>
<td>7 (40.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting Rate of Return (ARR)</td>
<td>18 (66.7)</td>
<td>1 (3.7)</td>
<td>1 (3.7)</td>
<td>4 (14.8)</td>
<td>3 (11.1)</td>
<td></td>
</tr>
<tr>
<td>Profitability Index (PI)</td>
<td>16 (59.3)</td>
<td>4 (14.8)</td>
<td>1 (3.7)</td>
<td>3 (11.1)</td>
<td>3 (11.1)</td>
<td></td>
</tr>
</tbody>
</table>

Source: capital budgeting of selected Indian companies [11]

Interpretation

The above table shows that Payback method and Internal Rate of Return is placed on the first rank by
maximum 66.7% and 44.4% of respondents correspondingly followed and monitored by Net Present Value (22.2%). The table also indicates that there are 66.7% of the respondents who have responded that they are not using the Accounting rate of return technique of capital budgeting. Profitability index is another method which is not used by the majority of the companies in India. The results show that because of the simplicity and easy way of return calculation through Payback period method is mostly preferred.

7. Conclusion and Suggestion

The results of the present study shows that every investment is useless unless and until followed by a proper appraisal or decision. Capital budgeting is considered as the corner stone in the theory of financial management. Every firm in the practice of manufacturing or production need to take care of all the methods for their investment evaluation. It is a well-known fact that every investor wants to be on an efficient frontier that is, to save themselves from the ill effects of risk. So best is to decide in advance before making a huge capital investment. After interpretation of data it is clear that manufacturing need huge capital subsidies. Because, there was seen a positive correlation between allocated capital bunds by concerned government and the expenditure made by manufacturing units. These decisions and techniques affect the long term prospects (survival and growth) of the business, the study also shows a supportive hand that payback approach as an investment analysis and capital budgeting method is widely used across the companies in India. But now a days the firms are in race of competition using various criteria and methods in selecting capital budgeting projects. The concept of Net Present value is not ignored by the companies, many of the enterprises of state of Jammu and Kashmir use capital budgeting techniques by equating their cash inflows with the cash outflows. Profitability index is least preferred by various enterprises. We cannot be oppose the techniques not used by business enterprises but every method of capital budgeting has its own importance as they are the real practices for project evaluation. Some of the suggestion for effective decision making for long term profitability of the firm are mentioned below:

- Awareness regarding the tools of capital budgeting should be given to entrepreneurs.
- A discount rate should be followed that will equate the present values of the investment flows bot in and out.
- Capital subsidies to manufacturing units should be increased.
- Capital budgeting decisions should be taken from the beginning of the investments in the project.

- Government should allocate more funds for business development particularly capital funds that will increase the long term profitability of different enterprises.

References