**Exercise no.5:** Comparison of IRR (Internal rate of return) and NPV (Net present value) techniques of an organisation

# Aim:

To compare IRR and NPV techniques of evaluation of capital expenditure

# Steps:

s.no	NPV	IRR
1	Use:	
	Used to evaluate capital expenditure	Used to evaluate capital expenditure
2	Method:	
	Discounts expected cash flows to present value.(PV) at the required rate of return	Calculates % of return
	The present value is compared with original investment .If The PV is higher than original investment, the project can be selected	PV factor= <u>Initial investment</u> Average cash flow PV factor is to be located in PV annuity table in the column of years and suitable rate of interest is to be identified.
3	Outcome: Results in money value	Generate % of return ,the project is expected to create
4	Purpose:	
	Focus on project surplus	Focus on breakeven cash flow level of a project
5	<b>Decision support:</b> Presents an outcome that forms foundation for an investment decision	Does not help in making decisions since % return will not tell how much money will be made
6	Discount rate issues:	
	Requires discount rate which is difficult to derive	No difficulty. Internal Rate of return is derived from underlying cash flows
	Generally NPA is mostly used.	Will be calculated as a part of capital budgeting process and supplied as an additional information.

# **Results:**

IRR and NPV techniques were compared and studied about the features of them. It was also understood that NPV techniques are commonly used.

# **Practical: 1**

Date:

# Preparation of capital budgeting process in an industry

### AIM:

To know the capital budgeting process in an Industry

## **Procedure:**

- Step 1: To understand what is capital budgeting
- Step 2: To know various steps in preparation of capital budgets
- Step 3: To know the process of Identification of investment proposals
- Step 4: To know the screening of proposals
- Step 5: To know the procedure for project evaluation
- Step: 6: To establish priorities for the proposals
- Step: 7: To approve the project
- Step 8: To know the implementation of the investment proposals
- Step: 9: To know the review and feedback of performance

# **Result:**

- 1. Capital budgeting decision is defined as firm's decision to invest its current funds most efficiently in long term assets in anticipation of an expected flow of benefits over a series of years.
- 2. Various steps in preparing capital budgets were understood. These steps were Step : 1 To know the process of Identification of investment proposals
  - Step 2: To know the screening of proposals
  - Step 3: To know the procedure for project evaluation
  - Step: 4: To establish priorities for the proposals
  - Step: 5: To approve the project
  - Step 6: To know the implementation of the investment proposals
  - Step: 7 : To know the review and feedback of performance
- 3. of identification of investment opportunities. We understood that this step involves identifying investment opportunities and analyse the cost and benefit of each opportunity.
- 4. of knowing the screening of investment proposals. We understood that in this step, the financial manager discusses with various departments to know whether the project is for new one or expansion or diversification and also decides whether the proposals are useful to the Company.
- 5. of knowing the procedure project evaluation. We learnt that various proposals were evaluated by estimating capital amount, cost of capital, expected return, profitability ,estimation of future cash flows by using various types of techniques like payback method, average rate of return, discounted cash flow like net present values, profitability index and internal rate of return to find the applicability of investment.
- 6. To establish priorities for the proposals we understood that the proposals need to ranked depending upon urgency, risk and profit
- 7. To approve the project –it involves capital expenses and sources of funds
- 8. Of knowing the implementation of the investment proposals .We learnt that the financial manager has to provide guidelines to departments with emphasis on time management, cost limits and control. The projects need to be evaluated by review techniques like Path PERT (Programme evaluation Review Technique), CPM (Critical path method)
- 9. of knowing the review and feedback of performance. We understood that the financial manager has to review actual performance with projected performance and modify at different stages.

Exercise no: 2: Evaluation of risk –return analysis of a Company

Aim: To evaluate the risk return analysis of a Company M/S Super Industries

Company details	:	M/S	Super	Industries
-----------------	---	-----	-------	------------

Year	Dividend	Average Market price (Rs.)
2001	2.00	40
2002	2.00	30
2003	2.00	40
2004	3.00	69
2005	3.50	100
2006	4.00	121

Calculate teh annual rate of return for the last 5 years. How risky is the shares?

Steps:

- 1. Calculate the rate of return
- 2. Calculate the average rate of return
- 3. Calculate the standard deviation

# Results:

Calculation of rate of return and average rate of return

$$\mathbf{R} = \mathbf{D} + (\mathbf{P1} - \mathbf{P0})$$

P0

R=rate of return

D= dividend

P1= price at the end of the year

P0= price at the beginning of year

Year	Calculation	Rate of Return
2002	2+(30-40)	-20%
	40	
2003	2+(40-30)	40%
	30	
2004	<u>3+(69-40)</u>	80%
	40	
2005	<u>3.5+(100-69)</u>	50%
	69	
2006	4+(121-100)	25%
	100	
Total		195-25 = 175
Average		175/5 = 35%
Average rate of return		

Calculation of standard deviation ;

Year	Dividend	Avearge	ROR( rate	Average	C= A-B	$C^2$
		market	of return	rate of		
		price	)(A) %	return (B)		
2001	2	40	-	-	-	-
2002	2	30	-20	35	55	3025
2003	2	40	40	35	5	25
2004	3	69	80	35	45	2025
2005	3.5	100	50	35	15	225
2006	4	121	25	35	-10	100
					$\sum c^2$	5400

Standard deviation = 
$$\sqrt{\sum c^2}$$
 /5

$$=\sqrt{5400/5}$$

= 32.86

### **Result :**

Since the standard deviation is very high, the stock is very risky and risk lovers can select the stock . The stock deviates more from the movement of market price.

### **COURSE OBJECTIVES:**

#### To make the students

- 1. To make the students understand principles of financial management
- 2. To enable the students to take investment decisions by analyzing the risk return.
- 3. To help the students to make financial decisions.
- 4. To provide the students with the basic knowledge of Dividend decisions.
- 5. To impart knowledge of working capital and cash management.

## **COURSE OUTCOMES:**

#### Learners should be able to

- 1. Students will be familiarized with basic concepts of financial management.
- 2. Students will know the technicalities of making investment decisions.
- 3. Students will be capable of making financing decisions.
- 4. Students will be familiarized with concepts of dividend decisions.
- 5. Students will be capable of making working capitalization and cash management.

### List of Practical

- 1. Preparation of capital budgeting process in an industry.
- 2. Evaluation of risk-return analysis of a company.
- 3. Estimation of components of cost of Capital of a new started business.
- 4. Evaluate theories of capital structure with an analysis of a company.
- 5. Comparison of IRR and NPV techniques of an organization.
- 6. Preparation of dividend policy in current corporate practice of a company.
- 7. Collection of difference source of long term and short term financing of a business unit.
- 8. Preparation of the principal yardsticks for measuring financial characteristics of investment proposal.
- 9. Evaluation of different methods used for ranking of investment proposal.
- 10. Choose any MNC and analyze the cost of capital and leverages.
- 11. Collection of the source of working capital of a new starting business.
- 12. Choose any company, Evaluate working capital management and give suitable suggestions.

#### **Suggested Readings:**

## **Text Book:**

 S.N.Maheswari.(2014). Financial Management- Principles and practices, [14<sup>th</sup> Edition], New Delhi: Sultan Chand & Sons.

# **Reference Books:**

- James C. Van Horne and Sanjay Dhamija. (2012). *Financial Management and Policy* [12<sup>th</sup> Ed], New Delhi, Pearson Education.
- 3. Pandey, I.M. Financial Management. [9<sup>th</sup> Edition]. New Delhi, Vikas Publications.

Bachelor of Commerce (BPS) (2017-2018), Karpagam Academy of Higher Education, Coimbatore 641 021 2