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# PORTFOLIO MANAGEMENT OF CONSTRUCTION FIRM

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**Abstract-** Working capital plays an important role in any organisation and to raise working capital, investments are to be made. To make such investment in any sector the knowledge of portfolio is necessary as it not only predicts returns on investment but also it evaluates the associated risk with the investment. People / companies are investing lot of money on construction industry to gain more and more profit on the investment but at the same time they have to bare some high risk which causes loss or at worst case heavy loss. This study identifies those risk elements of investment and gives appropriate ideas to investor whether to invest or not and if yes then how much to invest?

The key ingredients for Portfolio analysis are period for which an investment is to be made, risk, investment amount, rate of return and market condition. This portfolio analysis gives range of returns to investor so that they can predict returns on investment made. Through this analysis one can arrive at the decision whether to invest in single asset or in multiple assets.

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Portfolio management is a deterministic tool which maximizes the profit of an organisation / investors. The various range of application of portfolio management is as follows:

- For contractors to take project
- For investors to buy property
- For development of business strategy

## I. INTRODUCTION

Portfolio management is a dynamic decision process, whereby a business's list of active new product (R&D) projects is constantly up-dated and revised. In this process, new projects are evaluated, selected and prioritized, existing projects may be accelerated or killed, and resources are allocated and reallocated to the active projects. The portfolio decision process is characterized by uncertain and changing information, dynamic opportunities, multiple goals, strategic considerations, interdependence among projects, multiple decision makers and locations.

The portfolio decision process encompasses or overlaps a number of decision making processes within the business, including periodic reviews of the total portfolio of all projects (looking at the entire set of projects, and comparing all projects against each other), making Go/Kill decisions on individual projects on an ongoing basis and developing a new product strategy for the business, complete with strategic resource allocation decisions.

The three important characteristics of any financial asset are:

- Return - the potential return possible from an asset.
- Risk of the variability in returns of the asset form the chances of its value going down/up.
- Liquidity - the ease with which an asset can be converted into cash.

Investors tend to look at these three characteristics while deciding on their individual preference pattern of investments. Each financial asset will have a certain level of each of these characteristics.

## II. METHODOLOGY AND PART ANALYSIS FOR THE RESEARCH

The data provided by the firm/ individual was been analyzes by using Investment year and Portfolio interest rate determines the net returns.

Returns from the business												
Year	Yearly overhead/ expenditures	Contracting		Land		Real estate residential		Real estate commercial		Consultancy		Discounted rate
		Expenditure	Gain	Expenditure	Gain	Expenditure	Gain	Expenditure	Gain	Expenditure	Gain	
2000	4.5	15	6months-16.5	3	2012- 100	4.5	2004- 8					8.75
2001	4.5			4	100+	20	2003 - 30					8.5
2002	4.5							15	90+			8.5
2003	4.75					2000 - 8	18					8.25
2004	4.9	1999- 3.60	5			60	300+					8
2005	5.5			2000- 18	30					2	5	7.5
2006	5											7.75
2007	5.3							75	2011-110			8.5
2008	5.5											9
2009	5.6											8.75
2010	5.6			90	120+							12.5
2011	5.75											12.5
2012	5.75											13
2013	6	100	150+									12.5
2014	7.5	2.5	5							3.5	10	13
2015	6											14
<b>Total</b>	<b>86.65</b>	<b>121.1</b>	<b>176.5</b>	<b>115</b>	<b>350</b>	<b>92.5</b>	<b>356</b>	<b>90</b>	<b>200</b>	<b>5.5</b>	<b>15</b>	

1. Accounting Rate of Return (ARR) calculation for various businesses such as civil contractor, consultancy, developers etc.

ARR- it is also known as *Average Rate of Return*. it is a financial ratio used in capital budgeting without considering time value of money. ARR calculates the return, generated from net income of the proposed capital investment.

$$\text{ARR is calculated as } \frac{\text{NET PROFIT}}{\text{AVERAGE ANNUAL INVESTMENT}} \times 100$$

and net profit =  $\sum$  net income or gain -  $\sum$  net outcome or expenditure

2. Identifying critical risk elements based on its Impact and Occurrence on a 5 point scale

Occurrence	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
		Impact				

Combined Risk	Percentage	Significance
20-25	75-100	Very High Risk
10-20	45-75	Medium Risk
5-10	20-45	Low Risk
1-5	1-20	Very Low Risk

### A.R.R. of various businesses

1. ARR of contracting business

$$\frac{(176.5 - 121.1)}{(121.1 \div 16)} \times 100 = 731.957\%$$

2. ARR of land dealing business

$$\frac{(350 - 115)}{(115 \div 16)} \times 100 = 3269.56\%$$

3. ARR of real estate residential business

$$\frac{(356 - 92.5)}{(92.5 \div 16)} \times 100 = 4557.84\%$$

4. ARR of real estate commercial business

$$\frac{(200 - 90)}{(90 \div 16)} \times 100 = 1955.56\%$$

5. ARR of consultancy business

$$\frac{(15 - 5.5)}{(5.5 \div 16)} \times 100 = 1163.64\%$$

### III. FIELD APPLICATIONS

This study helps in determining the risk - return characteristics for various business and the outcome of the results gives the best strategy for the firm/ company where to invest the money. how much to invest? what are probable risk factors associated with the investment to be made? what is the significance of the risk.

In short instead of making investment blindly the study gives the concrete decision for investment proposal which is ultimately beneficial for firm/ company to maximize the net profit.

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