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ABSTRACT
The objective of this study is to determine the level of application and perception of finance executives and analysts regarding the investment appraisal techniques in Pakistani corporate sector in the light of theory. This study also investigates the major constraints on capital investment. Total 63 questionnaires were distributed in different cities of Pakistan (Islamabad, Rawalpindi, Lahore, Multan and Faisalabad) but only 37 properly filled questionnaires were processed; the potential respondents were the finance executives and Chief Financial Officers (CFOs) of the companies. The companies listed at KSE related to ten leading sectors were the population of this study. It is concluded that corporate managers are having the awareness about the worth of investment appraisal techniques and consider these techniques as important for long term profitability and survival of the company. It is also concluded from results that the availability of finance, lack of profitable investment opportunities and the attitude of senior management are the major constraints on capital investment.

KEY WORDS
Investment appraisal techniques, Pakistani corporate sector, long-term profitability, Investment opportunities,

1. INTRODUCTION

Investment appraisal technique is one of the regularly under investigation area of financial management practices and there are number of issues in investment appraisal, but appraisal techniques are the starting point for management. The objectives and constraints affecting project selection are, therefore, highly important. The results of this exercise can be useful in analyzing the efficiency of a company in different operations. If investment appraisal techniques are applied, an organization would achieve a better resource utilization and profit margin.

For the last decade or so Pakistan economy has been growing at a steady rate. The sectors like Oil & Gas, Cement, Fertilizer and Automobiles are among the most growing industries. Whereas, Textile, Tobacco, Sugar, Pharmaceutical industries have shown growth initially and then there is a decline in these industries. There are so many reasons behind the decline in these industries such as political instability, failing law and order situation, increasing power shortage, monitory reduction, food and energy crises and increasing operating costs of business? There is decline in the performance of manufacturing sector in the last part of this decade as compared to initial years where the growth was satisfactory (Economic Survey, 2008-2009). Banking, Insurance and Telecommunication are the most growing industries in service sector and there is need to give support to maintain the high growth for the economy. Pakistani Service sector has a remarkable development and the growth over the last decade. Since last quarter of 2007, as a whole the corporate sector performance is on the decline constantly**.** The investigation reveals that inappropriate application of financial management practices especially proper investment appraisal techniques is one of the reasons of this downfall along with above mentioned issues faced by the economy. Investment appraisal techniques have been investigated in the developed countries but in developing countries like Pakistan there is no work done in this scenario and the present study is the pioneer in this field and explores the investment appraisal techniques in Pakistani corporate sector.

The objective of this study is to determine the level of application and perception of finance executives and analysts regarding the investment appraisal techniques in Pakistani corporate sector. This study also investigates the major constraints on capital investment and suggests measures to improve the level of investment appraisal techniques in Pakistani corporate sector.

2. EMPIRICAL LITERATURE

Investment appraisal contains a variety of concerns; the type of technique to be used is the starting point to be considered by the management (Morgan and Tang 1992; Cowton and Pilz, 1995). A number of factors impact the decision of a manager about deferring the irreversible investment – investment learning (Grenadier and Weiss, 1997; Bergemann and Hege, 1998), partial reversibility (Kandel and Pearson, 2002), strategic investment (Cottrell and Sick, 2002), costs of capital stock adjustment (Abel and Eberly, 1994; Carlson et al., 2004), and costs related to agency problem (Bergemann and Hege, 1998; Christensen et al., 2002). These factors do not let the investment to be induced earlier than the conventional cost of capital, however, alter the extent of managerial delay. One of the fundamentals of investment appraisal is the risk analysis. Most acclaimed and widely used tools are discounted cash flow (DCF) based on time value of money. Commonly known techniques under this group are internal rate of return (IRR) and net present value (NPV) (Akalu, 2001). Projects are opted on the interim of the net present value from the view point of capital appraisal technique. This method gets a support on the fact that it takes into account the opportunity cost of investment and also considers all the future net cash flows, arising from the potential investment. IRR is another alternate appraisal technique that can be adopted with a different set of requirements. The pay back period assesses the investment by its capacity to recover in the shortest possible time. Capital investment appraisal deals with company's investing in fixed assets and, therefore, decisions which have long term consequences.
Future investment returns are impaired by current investment because of diminishing productivity which stimulates investment delay ahead of solitary investment (Pindyck, 1988). Capital investment, over time, is a reaction of management to profit process that is exogenous (Pindyck 1988; Caballero, 1991; Dixit and Pindyck 1994; Aguerrevere, 2003). In a dynamic setting optimal bankruptcy is studied by Goldstein et al. (2001), however capital growth is not considered in this study. Similarly, overall corporate strategy has important nexus with efficient management working capital management for optimal shareholders value (Afza & Nazir, 2011.)

There were a number of apprehensions in investment appraisal, the method of appraisal (Net present value, internal rate of return and payback period) and objectives and constraints in project selection (Morgan and Tang, 1992 and Cowton and Pilz, 1995). Investment appraisal was one of the important areas of management practices (Sangster, 1993). Therefore it was imperative that in the corporate sector, main focus for overcoming the financial concerns be placed on corporate debt management and restructuring (Lieberman and William, 1998; Zang and Wang, 1998; Ahn, 2001; Mako, 2001a; and Sohn, 2002). One of the important sources of financing in corporate firms was the use of debt. The highly cost firms using the debts represented its commandment with production; even without profits. But this obligation held well only if the debt can't be renegotiated. The better performance that leads to quality gave rise to an immense challenge for corporations. These could also help companies to develop a comparative advantage in terms of future forecasting for the companies (Galagan, 1997). Corporate takeovers did not have the maximum effect on firm stock value, as demonstrated by some earlier work (Jensen and Ruback, 1983; Jarrell and Poulson, 1989; and Peterson and

Peterson, 1991) believed that taking over firm shareholders witnessed as normal profit within a time span of five years but Magenheim and Mueller (1988) and Agrawal et al. (1992) contradicted with it by observing the shareholders dividend going down.

3. METHODOLOGY

In this study non-probability purposive sampling was used. The target companies were selected from ten leading sectors (banking, telecommunication, oil & gas, cement, insurance, sugar, oil & ghee, automobiles, textile and fertilizer) of the economy, which were listed at Karachi Stock Exchange (KSE). The selection criteria of companies were profitability and application of investment of capital. The respondents of this study were the financial analysts and Chief Financial Officers (CFOs) of the target companies. 63 questionnaires were distributed but 49 filled questionnaires were received and only 37 proper filled were used for analysis. There were two parts of the questionnaire first part is related to general information of the respondents, and company, i.e. company name as well as respondent name, company year in business, expenditure and revenue for the year of 2008-2009. And the second part contained the information of investment appraisal techniques (9 items), and major constraints on capital investment (3 items). Five point Likert scale was used to collect the data, where 1 was the highest level of agreement and 5 was the least level of agreement and the scale was adapted from the research paper McCaffery et al. (1997). SPSS was used to analyze the data.

4. RESULTS AND DISCUSSION

Table 1: Frequency Distribution with respect to "Company Revenues/Sales and Expenditure for the year 2008-2009" (N=37)

Company revenue/sales	No of companies	Capital expenditure	No of companies
Under Rs 100M	2	Under Rs 5M	6
Rs(100-500)M	5	Rs(5-50)M	5
Rs(500-1000)M	9	Rs(50-100)M	9
Over Rs 1000M	21	Over Rs 100M	17

Table 1 indicates the companies' annual revenues/sales for the period 2008/09 ranges from under Rs 100 M to over Rs 1,000 M, and their annual capital expenditures from under Rs 5 M to over Rs 100 M. Out of thirty seven companies twenty one organizations have more than Rs 1,000M revenue/sales for the period of 2008-09 and 17 companies' capital expenditures exceed Rs 100M.

Table 2: Frequency Distribution and Descriptive statistics with respect to "Investment Appraisal Techniques"

Items	*Percentage response rate (N=37)*				
	Agree	*Neutral*	*Disagree*	*Mean*	*St. Dev*
Reflect the financial outlay on a project	79	21	-	1.8500	0.6708
Be used where future cash flows are very uncertain	59	23	18	2.8500	1.3485
Make a proper assessment of risk	100	-	-	1.4000	0.5026
Investment appraisal is crucial for long-term profitability and survival	87	6	7	1.5500	0.8255

The above table summarizes the response of corporate managers about the use of investment appraisal techniques. The results demonstrate that 79 percent of the respondents are agreed to the statement that these techniques reflect the financial outlay on a project. Be used where future cash flows are very uncertain, 59 percent respondents are agreed with the statement. Interestingly, the highest area of agreement is the need of appraisal techniques to make a proper assessment of risk (100 percent respondents are agreed with the statement). The investment appraisal as a tool to forecast long-term profitability and survival are considered important. Since majority of the respondents (87%) are agreed with the statement.

Table 3: Frequency Distribution and Descriptive statistics with respect to "Contribution of Investment Projects to the Aspects of Performance"

Items	*Percentage response rate (N=37)*				
	Important	*Unsure*	*Unimportant*	*Mean*	*St. Dev*
Short-term profitability	73	19	8	2.2511	0.9356
Short-term earnings growth	68	17	15	2.3663	1.0939
Long-term sales growth	85	10	5	1.4737	0.4993
Long-term earnings growth	90	10	-	1.4211	0.5908
Long-term growth in shareholder wealth	76	17	7	1.7895	0.8932

This table contains the results of corporate managers' reply about the contribution of investment projects towards the performance of the corporation. The respondents consider the importance of each statement of this aspect in the order: Contribution towards long term earnings growth 90%, long term sales growth 85%, and long-term growth in shareholders wealth 76%, short-term profitability 73% and short term earnings growth 68% respectively. However, long-term growth in sales and earnings are considered to be the most important aspect of organizational performance.

Table 4: Frequency Distribution and Descriptive statistics with respect to "Constraints on Capital Investment"

Items	*Percentage response rate (N=37)*				
	Important	*Unsure*	*Unimportant*	*Means*	*St. Dev*
Availability of finance	88	-	12	1.8000	1.0563
Lack of profitable investment opportunities	85	10	5	2.4000	1.1877
Attitude of senior management	65	25	10	1.9500	1.0990

With reference to the constraints on capital investment; the finance managers are asked to respond about the availability of finance, lack of profitable investment opportunities and the attitude of senior management. The results of table 4 indicate that availability of finance is the most important perceived constraint on capital investment (88%), attitude of the senior management is the 3rd important constraint (65%) and the lack of profitable investment opportunities (85%) is the 2rd important constraint. From these results it is evident that corporate managers believe that investment opportunities are available to some extent but can not be availed properly due to the unavailability of finance and attitude of senior management.

Table 5: ANOVA (Measure difference between contribution of investment projects with regard to company revenue: (N=37)

	Group	**Mean**	**F-Stat**	**P-Value**
Investment Opportunities	Under Rs 100M	2.8000	4.103	0.023
	Rs(100-500)M	1.7487		
	Rs(500-1000)M	1.2800		
	Over Rs 1000M	1.0077		
	Total	2.0315		

Table 5 shows that ANOVA analysis has been used to identify the different investment contribution with respect to revenues of the companies' for the year of 2008-2009. As table shows that there is significant difference between companies' revenue and Investment opportunities in projects. P-value is less than 0.05 and F-test is 4.179. In this study the scale is ranked as 1 is most degree of agreement and five is the least degree of agreement and the mean difference of over Rs 1000M revenue (1.0077) is close to I (very important) than the other revenue brackets. It means that the companies those earned maximum revenue have the maximum opportunities of investment.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study explains the major issues in corporate finance and reports the results of a survey based analysis on investment appraisal techniques in the Pakistani corporate sector through descriptive analysis. Corporate managers are well aware about the worth of investment appraisal techniques for the assessment of project risk and consider these techniques are important for long term profitability and survival of the company. However, the results of this study are based on a selected sample of firms that are applying financial management practices but during the survey it is revealed that a substantial number of firms in Pakistani corporate sector are not following these practices either partially or completely. However, long-term growth in sales and earnings are considered to be the most important aspect of organizational performance. Interestingly, the highest area of agreement is the need of appraisal techniques to make a proper assessment of risk (100 percent respondents are agreed with the statement). The investment appraisal as a tool to forecast long-term profitability and survival are considered important. Since majority of the respondents (87%) are agreed with the statement. It is also concluded from results that the availability of finance, lack of profitable investment opportunities and the attitude of senior management are the major constrains for the capital investment.

5.2 Recommendations

On the basis of above results, here are few suggestions for the improvement investment appraisal techniques in this area. Resource availability is an important constraint to capital investment; this should be removed through private public partnership, foreign direct investment and by reducing interest rates. Top management commitment is also required to explore and avail such investment opportunities. Education and awareness of investors is an area which can improve the situation in the country

This study explores the application of investment appraisal techniques and constraints on capital investment. Therefore, this study enhances the awareness of stakeholders and investors about the investments to make the proper assessment of capital in profitable projects and their role to improve performance and growth of the Pakistani corporate sector.

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