

Investment Decisions and Capital Budgeting Practices in Manufacturing Sector of Pakistan

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and Tayyab Tahir^{**}

Abstract

The aim of this research is to study the investment decisions and capital budgeting practices in manufacturing sector of Pakistan. To examine the investment decisions in manufacturing sector in Pakistan. To determine the capital budgeting practices in Pakistan. Capital budgeting is very important for firm its importance cannot be overemphasize because it has long term benefits for the validity and operational functionality of the firm. Capital budgeting is followed by techniques which are helpful in decision making. In planning process these techniques play key role for choosing worth funding project. These techniques are used to get clear view of proposed projects. Previous studies work on overall financial/non-financial sector according to my limited knowledge there is no specific study in manufacturing sector. This study helps the managers to take the corrective measures. Questionnaire is conducted by using self-delivery collection method. It was found that the net present value technique is the most preferred by the big size firms companies. Moreover, significant differences between companies of different sizes are identified. In smaller companies, earning and cost comparison are more popular.

Keywords: Investment Decisions, Capital Budgeting Practices, Manufacturing Sector

Introduction

Organization have two types of the resources one is non-financial resources and second is financial resources. Non-financial resources involve human resources, physical resources, technological, natural resources and intellectual resources are etc. These resources are helpful to utilize the goals of the organization. These all are interlinked with each other. These resources are briefly described as below.

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Human resources are the need of every organization. Human resources are the process of management where qualified people are hired for a specific job. Human resources have two perspectives (candidate perspective and organization perspective). Firstly, for hiring, a company can advertise in different sources. There are some common resources available like web base advertisement, magazines and newspapers are most common. As well as advertisement, job description is also mention on these resources. After recruitment more, suitable person will get job. In first perspective the role of the candidate could be seen where candidate prove himself/herself for getting job. In second perspective organization plays role for retention of employees with the organization. For retention, organization take motivational measures so that an employ continues his services for long ago. The process of motivation makes an employ more productive and creative. For example, promotion, bonus, training and incentives etc., make employ motivated that's why they work hard.

The resources that are physically exist these have some physical shape. The examples of these resources are distribution network, machinery, vehicles or building etc. Physical resources are also called tangible resources. These are used with in the boundary of the organization. These resources are helpful to promote and enhance efficiency of organization. With the passage of time physical resources have different purposes. These might be used for security purpose, these might be seen in organization in different shapes security cameras, equipment, future and fixture, toilet equipment's and safety equipment are most common.

Natural resources are GOD gifted resources. These can be utilized by different sources. These resources can come from natural environment. The examples of natural resources are air, water, oil, wood, coal and may other metals etc. These resources give benefits to society when these are utilized in effective manner. These resources should be utilized for the rest of economy. Exploitation of these resources cannot make development for the country. For example, some countries exploited different resources these are Brunei exploited his oil trade, Sierra Leone's diamond exploitation, Nigeria's oil exploitation. Exploitation of natural resources displace the business development and increase inflation.

Technological resources are more important because it enable the communication between client and department, department to department. Technological resources may include computers, websites, smoke detectors, printers etc. Technological, physical and natural resources work efficiently when human resources give their maximum

efforts. Without human resources a company cannot operate physical and technological.

As above mention human resources efficiently utilized non-financial resources. Financial resources play a key role to get maximum efforts from human resources. Basically, financial resources related to money. The amount of spending's available for a business are financial resources. Spending might be in form of cash, liquid securities or credit lines. Financial resources sport all resources. Financial resources play role from input to production process. Financial resources formulate from three resources (i) business funds (ii) corporate capital (iii) other financial resources. All the liquid assets of the organization are financial resources. These resources involve cash, short-term bank deposit, stocks and bonds. Financial resources operate main operation in the organization for example buying of goods and services or long-term investment. Funding is the most important element of the organization. Financial resources are very important at every at every stage of the business. Financial resources can be collect by number of ways. These can be collect from friends, family members, financial institutions etc. Every organization has entire goal. Financial resource management give the directions to fulfill these goals. Financial resources have three main sources sale of goods and services, issuing shares or capital contribution and bank loans.

Financial management plays important role to manage financial resources. Financial management deals with four principles these are planning, organizing, controlling and monitoring the financial resources. In concise way financial management deal with overall goal of the organization. To manage the financial resources three decisions are require more important these are asset management, financing and investment decision. These three are closely related to the overall growth of the firms. These three are interlinked with each other elimination of one will disturb the entire decisions (decision making will not effective). These resources are briefly described as below.

The assets management decisions are usually engaged with the overall asset of the firms. The key role is that how effectively manage the asset. Asset management is the coordinated activity that realize the value of the asset. Corporate finance defines the asset management is a process where a company account for and maintain their asset (tangible and intangible) for their best use. Asset management can be done by different ways such as research, interview, analysis of companies and market trend. These ways tend to asset manager to buy a fixed or tangible asset with the qualities of reliability, efficient and at cheaper value. Asset management is followed by financing decisions.

In financial management financing decisions is the process of assessment where the financial manager assesses how much and where funding is required in business. Financing decisions are the possible ways for making investment and expenses. There are three possibilities for investors they can borrow, sell share or use existing capital. Financing decisions have two bases one is equity and other is debt. Hence there are two sources where funds can be raised. From these sources different types of the funds are held available. These are bonds, loan, borrowing, debenture, retain earnings or share capital. The overall objective of the organizations is to maintain the capital structure. While taking the financing decisions following points should be taken into consideration (i) investor should assess risk assessment (ii) minimum consideration (iii) minimum flotation cost. Financing decisions are based on investment decisions. These play an important role at every stage of decision making.

Investment decisions are based on size, asset & liability and owner equity of the firms. These are related to maximizing the wealth of the shareholders. Investment decisions are more important to manage all above mentioned resources. Investment decisions are influenced by some common factors these are age, gender, occupation and risk tolerance. To overcome these affecting factors, investors may perform some analysis (fundamental analysis and technical analysis). There are different sources of investment venture funds, banks, family and friends, institutional funds, government grants and banks etc. Investment decisions are alternatively known as capital budgeting or capital expenditure. Investment decisions have two types of decisions short-term and long-term decisions. In short term decisions are related to working capital management and long-term decisions are involving capital budgeting.

Investment decisions are important due to their sensitivity. These are sensitive in different ways. For instance, investment decisions influence growth, affect risk, continuous commitment of funds, sustainability or not sustainability to loss. Due to these above mentioned reasons investment decisions are considered more difficult decisions for organizations. The purpose of investment decisions is not for current operating activities of business. The purpose of these expenditures (investment decisions) must endure longer period consequences of business. Such long-term investment directly related with the growth of the firms. An inadequate investment will lead continuous suffer for firms.

Capital budgeting is very risky wrong decisions have inverse or irreversible effects. Investor once acquires wrong fixed assets with bearing losses assets cannot be disposed of. These decisions are

considered more difficult because these are based on future forecasting. As mention above investment decisions are made for long period. That's why it requires future series of investments. Such investment lead uncertainty and risk. Capital expenditure not only effect the present earnings but the future profitability as well. Capital budgeting principles avoid the investors to over or under investment in a fixed asset. That's why investment decisions and capital budgeting gain international importance. Capital budgeting decisions leads large investment. These investments are very important for firms. Investors must plan and control capital investment very carefully.

Investment decisions and capital budgeting are followed by techniques. These techniques are divided into two categories. These are briefly explained in section 2.2. First are non-discounted cash flows and second are discounted cash flows techniques. In non-discounted cash flow estimation three techniques are most commonly used. These are cost compression, earning compression and payback period. On the other hand, discounted cash flows involve internal rate of return, net present value, dynamic payback period and value based methods are most common.

In the modern era the role of the financial manager cannot be overemphasize. At the first half of the 1900s mangers were physically involved themselves in raising funds as well managing, due to the present value concept because this is the method which allow the managers either to (Horne and Jr, 2008) accept or reject the underlying project.

As such globalization improves the living standards of people it also facilitates and communicates the entire world. On the other hand, the globalization also affects the many aspects of the financing decisions making. It is the era of the technology and innovation people require more rapid changes. Technology influence the financial mangers because of the rapidly and speedily changes. Due to these changes the financial managers must think more critically while making an investment decision. All the process of investment decisions need (Megginson and Smart, 2007) high research & development and accurate forecasting for the survival. That's why the role of the financial manager gains more importance over the last two decades. The theory and practices that was use in past cannot be applicable today because at that time the way of living and the standards of people was limited as per their needs.

For respond to change in dynamic environment investment decisions or capital budgeting decisions are more effective. Now a day external factors are influencing the financial mangers because of highly changes in technology, inflation rate, environment and (Kengatharan,

2016) uncertainty and fluctuating exchange rates, environmental and ethical issues are namely. For the success of the financial managers it is necessary to make correct decisions based on forecasting the uncertainty and knowledge of multiple assumptions. The successfulness of the financial managers not only affects the profitability of the company but the economy as well.

Investment decision making is an important process that can vary among persons depending on different factors. Some decisions are based on decision considering other many other factors that can be going to making proper decisions. During the period of investment decisions, investors face the opportunity, uncertainty and selection of outstandingly complex factors. This is a challenge for financial division workers, qualified investors and especially private and customary homes.

Now a day external factors are influencing the financial, managers because of highly changes in technology, inflation rate, environment and uncertainty (Kengatharan, 2016) and fluctuating exchange rates, environmental and ethical issues are namely. For the success of the financial managers it is necessary to make correct decisions based on forecasting the uncertainty and knowledge of multiple assumptions. The successfulness of the financial managers not only affects the profitability of the company but the economy as well.

Capital budgeting practices and investment decisions take the interest of the many researchers and the financial analysts during the past decades. While using cost of capital a firm has more chances to face bankruptcy due to down turn of a business. At this stage, capital budgeting process is the remedy because while investing a project, an investor follows the pattern of how to invest and what is the current requirement of the business so that corrective measures should be chosen.

These are the two basis measures (as above mention) at the time of survival. Expansion is the required when investors want to compete or grow in the market. To grow in the modern global war, fare the technological modernization, promotions, infrastructure and product development are the main factors that need heavy investments in form of tangible and intangible assets for the growth of the company. It is the continuous investing process which reduces cost and generates profitability of a firm. Firms that reduce the cost and generate the profit ultimately enhance the growth. In this scenario the capital budgeting practice is an important tool which helps the managers to take wised decisions to financing investment opportunities.

For the sake of financing firms has option to use debt or equity according to the need of the firm. A firm that has high growth relatively

have opportunity to avail investment will use debt. Because such type of the firm can generate the enough cash flows to mitigate the risk that is arises from the use of the debt. On the other hand, low growth firm hesitate to use the debt option because such type of the firms has limited resources to repay debt along with interest. That's why, capital budgeting is very important while making financing decision whether to use debt or equity. Capital budgeting practices are used in most of the business. These techniques can be seen when a manger make the financing decisions. However, many of these uses used these techniques and are not familiars with the terminologies.

Investment decisions and Capital budgeting practices

However, come to our point, we will focus on the investment decisions related to the capital budgeting (Horne and Jr, 2008) techniques and how much these areas correlated to each other with the goals and objectives of the company. If standards (goals and objectives) are fulfill then financed otherwise not. The primary objectives of the firms are wealth maximization. Due to that reason mangers have to invest or issue stocks. If manger issue stock the earning per share will be low. Research and development enable the investor to make multiple decisions in different ways. The process of research and development leads to forecasting related to updating and for the successfulness of the business (Johnson and Pfeiffer, 2016).

Capital budgeting decisions are generally involved the evaluating and selecting a term investment project. The process of selection and investment are closely related to the overall goal of the firm. For this purpose, investor make multiple investment projects e.g., the manufacturing firm may invest in property, install new plant or machinery.

Capital expenditure motives

Investment decisions should be considered more important when it has the quality of acquisition. This may be in the form of the land, plant or equipment. Capital expenditures are made for numerable reasons these are may be advertising or investing. Capital expenditures are those expenditures that are more than one year. For understanding all the fixed assets are capital expenditures on the other hand all the capital expenditures could not capital expenditures.

Capital budgeting process

Capital budgeting process deals with the five steps these are proposal generation, reviewing & analyzing, decision making, implementing and finally follow up. Capital budgeting relies on amount which should be invested. Different type of the project/models are available according to investment outlay, these projects/methods are as follows,

- Mutually exclusive vs. independent project
- Unlimited fund vs. capital rationing
- Accept or reject vs. ranking approach
- Conventional vs. non-conventional
- Annuity vs. mixed stream cash flow

Capital budgeting techniques

Basically, capital budgeting technique is divided into two categories discounted cash flow and non-discounted cash flow. Non-discounting cash flow is the method in which time value of money is not considered, for instance the rupee that was invested in many years earlier have the same value DCF is the voice versa. Cost comparison, accounting return/return on investment and payback period are related to non DCF method. Share holder demand only maximization of wealth and the non DCF method does not follow this principle all time (Schlegel et al, 2016).

Discounting cash flow is the voice versa of the non DCF. “In DCF method present value, internal rate and dynamic payback period are included (Brigham and Ehrhardt, 2002)”. In the capital investment most, popular technique is NPV, by using NPV net present value of future cash flow is calculated (Kalyebara and Islam, 2014). If NPV is positive or zero than accept otherwise reject. Estimation of cost of capital is very useful tool while using discounting techniques either NPV or IRR (Hermes et al., 2007).

Statement of the Problem

Now a day investment decisions and capital budgeting practices are very important for every firm. By using these tools uncertainty and risk are those factors that can be minimize. For example, if we chose the wrong supplier for supplies next time we have an option of new supplier and if once wrong project is selected it is very harmful and have long term impact on the profitability of the firm. These techniques are also used in Pakistan. We want to study, how much these decisions are used in Pakistan and either these decisions are beneficial for the business organization.

Aim and Objective

The aim of this research is to study the investment decisions and capital budgeting practices in manufacturing sector of Pakistan

- To examine the investment decisions in manufacturing sector in Pakistan
- To determine the capital budgeting practices in Pakistan

Significance of Study/Justification

Capital budgeting is very important for firm its importance cannot be overemphasize because it has long term benefits for the

validity and operational functionality of the firm. Capital budgeting is followed by techniques which are helpful in decision making. In planning process these techniques play key role for choosing worth funding project. These techniques are used to get clear view of proposed projects. Previous studies work on overall financial/non-financial sector according to my limited knowledge there is no specific study in manufacturing sector. This study helps the managers to take the corrective measures.

Literature review

Finance theory suggest several models to evaluate investment project (Schlegel, Frank and Britzelmaier, 2016) and stipulated that purpose of this study was to find relationship between capital budgeting techniques and investment decisions and reviewed that which technique is better. This research was based on questionnaire and collect data was collected from 65 German companies listed in the Frankfurt stock exchange by the help of investor relation department. They collect data by mailing to the management accounting. Secondly, they collect data from finance and accounting professionals. Company size was grouped into portions according to the revenue. They found that NPV is the most frequent technique used by managers in capital budgeting decisions. They also found that the firm that large size use NPV and IRR while the SMES used the non-discounted firms. In the era of cut throat competition every manager is responsible to maximize the share older wealth this immense competition force to manager to use DCF method. The significance for the choice of the method and size of the company was checked by Mann Whitney U-test. As above mention test group size was tested on the ordinal scale and techniques are dichotomous scale.

Kengatharan (2016) found that there is still inconsistency between the capital budgeting theory and practices. He said that capital budgeting is the behavioral approach. He also concluded that while using the DCF method most commonly NPV, IRR, MIR and DPB are the most commonly used techniques and while using NON DCF method PB and ARR are used most commonly. For conducting these research four criteria was set which cover the methodology research philosophy, approach, strategy data collection and analysis. For conducting this study researcher analyses last two decades articles of different journals. The total number of the paper was 363 out of them only 201 research papers were selected. He suggested that there is still gap of capital budgeting information system there is no software product which make accurate decisions for capital budgeting. This study based on longitudinal research.

Chaudhary (2016) found significant relationship between the capital budgeting techniques in beverage sector of Nepal. The sample consists upon two beverage companies Sunrise Nepal Food and Beverages (Pvt) Ltd and Birgunj Pure Drinking Water Udyog are namely. For exploring the study, the researcher further divides the capital budgeting techniques into the certainty, risk and uncertainty and finally FDI basis. These three heads are explored in context of the NPV, PBP, IRR, PI and ARR. The researcher formulates three hypotheses. Apply the chi square the entire hypotheses are significant at 3.841 %. The researcher found the significant different with respect to (actual to NCO), (actual to NPV) and (actual to IRR). PB analysis shows that SNFBPL is risky then the BPWV. By analysis IRR SNFBPL return was low, NPV of SNFBPL was better, by analyzing PI and ARR SNFBPL return was good. Finally, it was found that the NPV, ARR & PI are the techniques which have higher return then BPDWU as compare to SNFBPL.

Bancel and Mitto (2014) By conducting survey they found that the most experts use the DCF and relative valuation methods they focus that the estimation need attention of both in term of academic and practitioner prospective view. He stipulated that the process of valuation of an asset is the science not an art because it involves projection and risk of future cash flows. Due to unclear guide lines the practitioner ignores the recommendations provided by theory. The practitioner that uses the standards and comparison they make decisions in useful outcomes. The survey was based on questionnaire but on the other hand it contains feedback part which contain advantages and limitation of estimations, why the pattern is selected or why not? The population consists upon 356 respondents and total number of valuation expert was 7,281 out of them 424 respond and the detail analysis was conducted by 356 responses.

Rossi (2014) gathered data from three European countries France, Italy and Spain. Survey was conducted from 110 firms. Total sample consist upon 43 firms. The decision making depend upon the size of the firm, the decision maker of the small size firm is owner. In SMEs the decision maker will be CFO and in large companies the team decision are based. Different variables are drawn for conducting the research like country, size and capital budgeting techniques to check association. They found that the result was opposite to their theory the payback period was more frequently preferred and NPV is used by large companies.

Daunfeldt and Hartwing (2014) stipulated that positive relation exist between company characteristics and choice of capital budgeting methods. They use multi regression analysis rather than to use. The questionnaire was conducted in 2005 and 2008 from the CFOs of the

Swedish companies. They get 112 respondents in 2005 and in 2008 they get only 92 respondents out of 249 companies their result sported the hypothesis they found that company having greater leverage use the payback period. They target the 12 variables and compared these variables with other countries. They also found that the company having control debt and lower management ownership use the ARR.

Jensen (1986) argued that net present value affect the firms worth when funds are generating positive net present value. Campello (2006) found that firms can increase market gains with the use of debt and high debt decreases the sales. Baum et al. (2010) work in capital investment in manufacturing sectors in America he concluded that uncertainty is the factor that directly or indirectly linked with the capital investment.

Hussain and Shafique (2013) the survey was conducted by the 5 largest Islamic banks in Faisalabad. They argued that financing is made by DCF. Vivers and Cohen (2011) found that for long and short-term investments require a wised decision for appropriate techniques which resulting benefits and is better for business growth. Toit and Pienaar (2005) argued that though capital budgeting has two aspects, one long tenure and second handsome capital. If financing decisions is made without any research and development, it will be harmful for business.

According to welch (2004) “the process of accepting and rejecting a proposed project is called capital budgeting”. Long term investment requires attractive capital if anybody did not do this he may suffer from it. Capital investment is the risky investments due to its tenure. An investor must have proper risk sense and skill. SWOT analysis investor help investor before taking capital budgeting decisions. Capital budgeting requires decentralized approach where many teams and departments make collaborate efforts.

Johnson (1999); Du, Toit and Plenaar (2005) argued that wrong decision might have harmful impact on cash flows and also for survival. Welch (2004) an investor collects information from different sources inside and outside the organization. Vivers and Cohen (2011) argued that DCF is main criteria for evaluating investment opportunities because it considers the time value of money. Vivers and Cohen (2011) argued that hurdle rate is the back bone of the DCF techniques. Schlegel et al, (2016) argued that payback period is used when investment is small.

Schlegel et al, (2016) found that non DCF methods only deal with cost comparison and have no surety of maximization of wealth and argued that these steps are familiar and easier to use. Rayan and Ryan (2002) argued that the drawback of payback period it deals only the shortest period where the investment recover with its initial outlay.

Hermes et al, (2007) cost of capital estimation is very important while using discounting techniques. Schlegel et al. (2016) argued that value based methods are deal in between the organizational goals and investment project. Brigham and Ehrhardt (2002) said that NPV, IRR and MIRR are the basic DCF techniques. Pratt (2002) defined NPV as the NPV is the sum of future outflows and inflows. Rayan and Rayan (2002) the overview of expected change in the shareholder wealth.

Rossi (2015) argued that capital budgeting is life blood of financial management capital budgeting provide different techniques to evaluate a project. He found that NPV and PP is the most used techniques by financial managers. Graham and Harvey (2001) conduct survey from 392 firms and found that firms in large size chose net present techniques and capital pricing model on the other hand small firms used payback period.

Hartwing (2012) conduct a research in Swedish listed companies and analysis the cost of capital estimation and capital budgeting. He compared these techniques and methods with American and European companies. He concludes that Swedish companies did not frequently use capital budgeting techniques and cost of capital.

Andor, Monanty and Toth (2015) focus on the central eastern European companies. The sample size was 400 companies situated in these countries. They found that capital budgeting practices are influenced by some factors. These factors are firm size, culture, goals and ethics. They found significant result among these countries. They also argued that mostly previous studies are conducted in developed countries Canada, Austria, America and Western Europe.

Hayward et al. (2016) employed cross sectional survey in this paper they focus on the nature and implication of behavioral beliefs. The survey was taken on the Australian bio technology firms. Total population was 99 and 86 % respondent were CEOs and 12.4 % was company directors. The ages of the firm were 7.5 years. They employed GMM (generalized method of movement) and OLS (ordinary least squares). They concluded that there is heterogeneity while planning ROR and NPV. They found that the ROR technique is more beneficial as compared to NPV. ROR provide the facility for both calculation of NPV and the flexibility of the project. They found that ROR helps to promote more innovations.

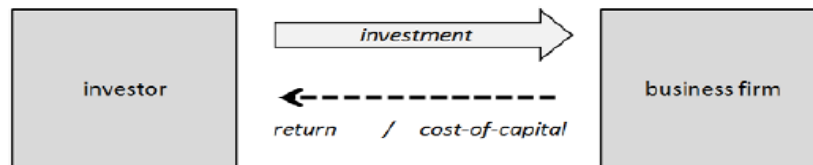
Andres, Fuente and Martin (2015) conducted the survey in the 140 Spanish companies. Data that were conducted are based on the non-financial firms. They use the robustness analysis to check the sensitivity of their results. The researcher uses the same pattern of research (other researchers conducted in the different countries). The author found that

industry and its size matter for adoption of appropriate technique. They found that real option reasoning can easily flexible with environment and with the growth opportunities.

Zubairi and Amin (2008) in this paper they examine the capital budgeting techniques with respect to the investment & company size, nature & growth rate of the company. Author also differentiates the capital budgeting practices with respect to local and foreign operations in Pakistan. This study consists on primary research having the population of 150 firms out which only 35 responds. They found that companies having the big size use the IRR and medium enterprises use NPV and PBP according to the preference of debt and leverage.

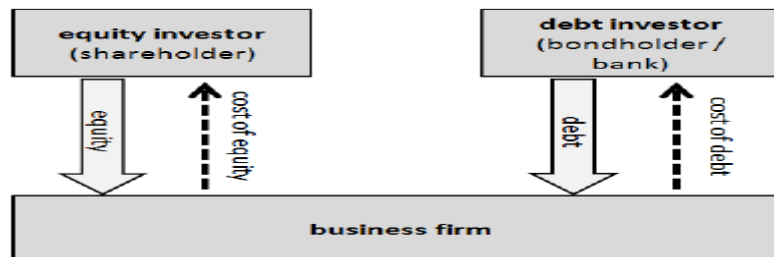
Bennouna et al. (2010) surveyed in Canadian firms and argued that 83 % firms are using DFC. This survey was conducted from 88 firms. He further argued that the most favorite technique adopted by investors is NPV and IRR. Cost of capital is estimated return that a company calculates before making capital investment. Cost of capital can be determined more than a few models. Cost of capital based on risk assessment (et al., 2004). The company that determines cost of capital at higher risk will also desire higher return and vice versa.

Figure 2.1



Cost of capital have key role between investor and business firm, a business firm get capital from his investors and return them by evaluating project with cost of capital. Cost of capital depends upon two aspects equity and debt (Brealy et al., 2009). WACC is used to determine cost on equity and debt.

Figure: 2.2



WACC is most suitable technique while determining cost of capital on equity basis. Finance theory suggests capital assets pricing model for estimation because it deals with systematic risk. To take care the compliances of equity, financial managers use the systematic risk.

Managerial finance deals with two issues hurdle rate and performance measure. Hurdle rate is the primary investment allocation process. Performance measure deals with actual return and targeted return. To measure business (schlegel, 2014) performance most of companies use ROCE (return on capital employed). Value based measures deal with economic profit. These can be deriving by subtracting value created from cost of capital. These measures are helpful for shareholders. The relationship between value creation and cost of capital is shown in figure.

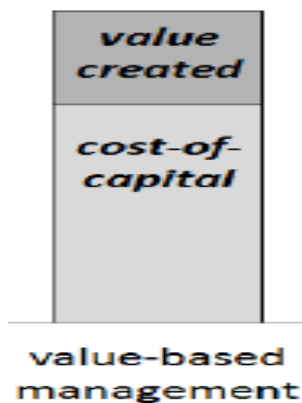


Figure 2.3

Sajid, Sabir and Gillani (2016) they stipulated the relationship between the leverage and investments. For conduct this research they use secondary data. Data was collected from 2009 to 2013 of 30 companies. They use three regression techniques. They apply hausman test for analysis and stipulated that random effect model is closely related with their variables. They found that leverage is negatively affect investments. It indicates that when leverage increase inversely investment will decrease. They conclude that profitability and investment have positive impact when investment increase profitability will decrease but leverage with high ratio is harm full for investment. The main objective of this study was to highlight the impact of leverage on investment plan. They said that while making financing decisions with using debt management should take wised decisions either go for it or not.

Graham and Sathye (2017) they examine that relation between capital budgeting and national culture. They check association across two countries Indonesia and Australia. The purpose of this study was to check the link and influence among culture, literature and techniques. For this purpose, semi-structured interview was conducted. The survey was conducted from listed companies from both countries. Results indicate that uncertainty influence capital budgeting technique (uncertainty include political, legal, economic and social influence). They found that uncertainty level is higher in Indonesia as compared to Australia. They stipulated that techniques are selected based on size and complexity and are very useful for a business.

Gupta and Pardhan (2017) found that there are four factors that influence the capital budgeting techniques these are risk, cost & benefits and trait & size. They conclude that size & cost and benefits have direct relation. This survey was conducted on seventy-five companies. They adopt regression and sport factor analysis to analyze their study.

Umair (2015) Suggests that doctors have used the basic financial tool for companies. It was also noted that companies differ with corporate size practice. According to their results, companies are already using more than a discounted cash flow method. It is considered as an important project that 85% IRR to the project using several criteria such as participant decisions. Almost 65% of the respondents always use or almost always net present value companies of small businesses to be more likely to use the method of large companies to small businesses are likely not much. They are more likely to use lower IRR than potential growth companies with high growth companies. Sensitivity analysis and project scenario analysis Techniques are widely used for risk assessment.

Agency theory

This theory explains the information asymmetry between the manager and shareholders. This can be reduced by adoption of capital budgeting and evaluation investment project. Without agency theory managers reluctant to invest in positive net present projects and hesitate to invest in the negative NPV. They only focus on the systematic risk (which cannot be diversified). This leads low risk and low profit. The adoption (Jensen,1993) of positive NPV reduces the risk of low tenure of manager that's why manager hesitate to invest in the negative NPV projects. In order to invest in positive net present value projects managers chose some risky projects.

Research Gap

From several years many researchers work on capital budgeting practices and found that these techniques are use full tool for the profitability of firm's (hurdle rate, internal rate, present value, modified

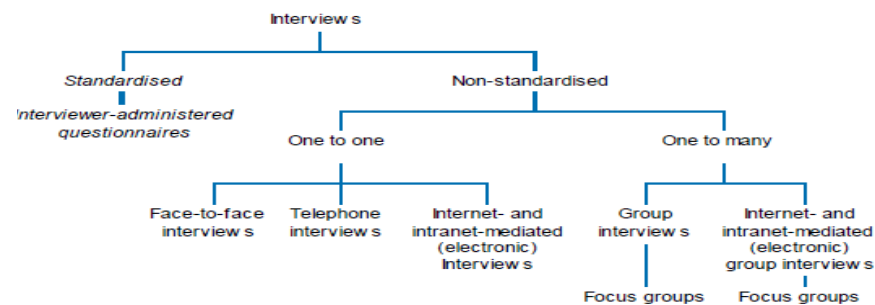
payback period, payback period). Schlegel, Frank and Britzelmaier (2016); Kengatharan (2016); Chaudhary (2016); Bancel and Mitto (2014); Myers (2003);Graham & Harvey (2001);Rossi (2014); Daunfeldt and Hartwing (2014); Hayward et all. , (2016); Andres, Fuente and Martin (2015);; Atkeson& Cole (2005); Halov&Heider (2004) These techniques are varying from country to country and firm to firm. Capital budgeting techniques are also used in Pakistan. Some studies are available that contribute in banking, textile and overall sectors. Zubairi& Amin (2008); Farrukh, Areal and Rodrigues (2015); Hussain, Shafique (2013). Zubairi and Amin, 2008 conduct study in textile sector but this survey was consisting on limited responds only 35. According to my limited knowledge there is still gap exist due to limited study.

Research Design (Methodology)

Primary data

Researcher gathers primary data when secondary information is not available (Sekaran and Bougie, 2013). Primary data is gathered first time. This data is raw handed data. Primary data can gather through three ways interview, questionnaire and observation (Bryman and Bell, 2011). Interview is gathering data at targeted issues by conversation with respondents. Interview has three types structured, semi structured and finally unstructured (Saunders, Lewis and Thornhill, 2012). In this study interview and questionnaire both are used for gathering data. Primary data is gathered first time. This data is raw handed data. This data is (Umair, 2015) consist upon population and sample size. For conducting research data is gathered through questionnaire. In figure 3.1 type of the interview are drawn.

Figure 3.1



“The interview usually has some latitude to ask (Bryman and Bell, 2011 p.205) further questions in response to what are seen as significant replies”. To conduct this study face to face interview based on semi structured interview method is gathered. This method has some merits.

- When respondent give face to face interview there are less chances of botheration.
- Can get maximum feed feedback across the country.
- Help the interviewer to get more information.

Primary data can be collect through various techniques as shown in figure 4.1 e.g. electronically, postal and self-administered. Each phase has its own pros and cons. Self-administered questions are those that gathered data directly (Bryman and Bell, 2011). This research is collected by self-delivery method it also has some benefits.

- Time saving
- Increase number of respondents
- Provide guide line about quires to respondents
- Encourage respondent for unbiased selection

Population

The population for this study is consisting upon manufacturing sectors of Pakistan stock exchange. Total 300 questionnaires were distributed by self-collection delivery. Out of this only 240 percent were received. Some questionnaire was not proper filled and containing missing values. These are excluded from sample size. Total sample size was consisting upon 212. For the purpose of data collection, we collect data from CFOs.

Data type/collection

Primary data is collected (Welman el al. 2005) first time (raw handed data) by this way researcher conduct his study. Researcher collects data from different sources to answer his questions.

Empirical method

The survey is conducted from manufacturing sectors listed in the Pakistan stock exchange. As mention above questionnaire is conducted by using self-delivery collection method. The survey consists upon three sections.

1. First question consists upon capital budgeting practices (techniques).
2. Second question is deals with hurdle rate.
3. Lastly, third question about the company's data (turnover and no of employees) questionnaire consist upon several options like relevant and not relevant.

A key was developed so that the people who have not known about the terms can get familiar with them. Every participant gains proper understanding before filling questionnaire.

Section I

This section deals with demographic information of respondents. The demographics characteristics are including age, gender, work

experience, company name, sectors in which company exist, product line and head quarter province.

Section II

In section II first part of the questionnaire starts. This part concerned with determines capital cost, performance management & capital cost and investment & cost of capital. This part has eleven 11 questions and each part has its own sub questions. Five-point liker scale is used i.e. (1=very low irrelevance to 5=very high relevance).

Section III

In third section information regarding cost and benefits in managerial finance, company data (size and investor), organizational structure & management and corporate culture has been asked.

Data analysis techniques

Data will be analyses through description and inferential model. Descriptive method involves mean, standard deviation, minimum and maximum. In inferential model correlation and regression model will be applied. For conducting research population was 405 out of them 300 distributed. After distribution I collect survey from 240 listed companies. Out of them 212 was selected incomplete data sets are not included in analysis.

Research instruments

This study is based upon survey. For this purpose, questionnaire is collect from CFOs of Pakistani manufacturing sectors listed in Pakistan stock exchange. The questionnaire covers the two parts. First part is cost of capital related questions second part related to influencing factors. A detailed analysis is given below. To conduct these study statistical packages for social sciences (SPSS 20.0) is used. Correlation and regression analysis is done through this tool.

Result and discussion

Descriptive analysis for study variables

In this chapter two measures have been used for descriptive analysis. These are mean and standard deviation. The study shows strong arguments when value of mean is above mean, and value of standard deviation is low. The study covers different variables in depth to understand capital budgeting and investment decisions. To study variables different aspects are asked to evaluate cost of capital, “performance management & cost of capital”, “investment & cost of capital”, cost and benefits of cost of capital in managerial finance, company size & investors, organizational structure and lastly management and corporate culture. As mention above questionnaire has two parts and each part has its own sub questions. To analyze results of this variable descriptive analysis is discussed below.

Section I

Descriptive statistics analysis:

This section consists of descriptive statistical analysis of survey.

Table 4.1.1.1: Demographic characteristics of questionnaire respondents

Demographic Cumulative percentage	Respondents	Percentage
Gender		
Male	209	98.6
98.6		
Female	3	1.4
100		
Age (years)		
20-30	44	20.8
20.8		
31-40	91	40.9
63.7		
41-50	61	28.8
92.5		
51 or above	16	7.5
100		
Work Experience (Years)		
01-05	32	15.1
15.1		
06-10	46	21.7
36.8		
11-15	53	25.0
61.8		
16-20	45	21.2
83.0		
21-25	20	9.4
92.5		
26 or above	16	7.5
100		

In this analysis demographic information e.g., gender work experience and age have been described. In this section pie chart figure shows the majority of male respondents. The age of the respondents are between 23 to 65 years and 98.6 % are male respondents. The majority of male respondents are in between the age of the 31 to 40 years and 42.9 % respondents are lies between this age group. 25 % respondents got

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majority in work experience and lies between 11 to 15 years. Total 25% individuals belong to 53 respondents.

Table 4.1.1.2

Sectors	Respondents	Percentage	Cumulative percentage
Auto mobile assembler	3	1.4	1.4
Chemical	2	0.9	2.4
Engineering	8	3.8	6.1
Food and personal care products	9	4.2	10.4
Oil and gas exploration companies	4	1.9	12.3
Power generation and distribution	12	5.7	17.9
Pharmaceuticals	8	3.8	21.7
Synthetic & rayon	15	7.1	28.8
Textile composite	94	44.3	73.1
Textile spinning	25	11.8	84.9
Textile weaving	4	1.9	86.8
Vanaspati & allied industries	2	0.9	87.7
Woollen	4	1.9	89.6
Other	22	10.4	100

In table 4.1.1.2 sector wise respond is shown. The majority of the respondents are belonging to textile composite sector with 94 respondents. It gives highest respond rate of 44.3%. Zubairi and Amin (2008) collect survey from Pakistan stock exchange listed companies. They got 35 respond out of 150 firms it gives 23 % response rate. They also explain that in previous studies response rate was 8 to 10%. In this study we got 71.3% response which looks very healthy as compared to previous responses. We can see that 94 companies are belonging to textile composite sector. This is the highest respond rate in this sector. Textile spinning is at second with 25 companies. In others hosiery made up, garments and wood industry etc. are included. Chemical industries have less response as compared to other sectors. Fourteen sectors respond out of 24 sectors.

Table 4.1.1.3

Product line	Respondents	Percentage	Cumulative percentage
Chemical product	7.0	3.3	3.3
Electrical equipment	11.0	5.2	8.5
Food products, beverages & Tobacco	11.0	5.2	13.7
Machinery & equipment	7.0	3.3	17.0
Textile & leather products	69.0	32.5	49.5
Wood products	2.0	9.0	50.5
Others	105.0	49.5	100

In table 3 product line is shown according to the number of respondents and their percentage. Others segment have majority of 105 respondent. Textile and leather products got share at second with 69 respondents. Wood industry is at last stage by 2 responds.

Section II

4.1.2. “Determination of cost of capital”

Figure 4.1.2.1

“Determination of cost of capital on company group level”

Table 4.1.2.1 belongs to part 1.1 of question 1.1.1. First part deals with determination of cost of capital it also divided into sub parts.

Table 4.1.2.1

Determination of cost of capital	Respondents	Percentage
Yes	166	78.3
No	46	21.7
Cumulative percentage		
Yes		78.3
No		100

Table 4.1.2.1 shows number of respondents and percentage of their portion. In this table 166 respondents determine the cost of capital and only 46 does not use this out of total sample of 212. Further analysis will be applied to 166 respondents who say yes.

Table 4.1.2.2

Participant response on cost determine as entire company basis

Determination of cost of capital			
No	Items	Mean	SD
1	Weighted Average Cost of Capital	4.48	.866
N=166			

In table mean is 4.1.2.2 it shows above mean value. It means that respondents are using weighted average cost of capital for evaluating capital cost project and have proper understanding with this concept. The result shows very high relevance. However average mean is exceeded from mid-point of five point liker scale that shows high relevance of this method. Standard deviation is low at 0.866 which means that variation is also low.

Table 4.1.2.3

Participant response on determine cost of equity as entire group

Determination of cost of capital	Respondents	Percentage	Cumulative percentage
Yes	188	87.7	87.7
No	24	11.3	100

Table 4.1.2.3 shows number of respondents and percentage. Total sample size is 212 and out of this respondents who determine cost on equity level is consist upon 188 sample size. Remaining 46 does not determine cost of capitals. Further analysis will be applied to 188 respondents who say yes.

Table 4.1.2.4
Participant response on determine cost of equity as entire group

Determination of cost of equity			
No	Items	Mean	SD
1	"Capital Asset Pricing Model"	3.28	1.465
2	"Other capital market models"	2.69	1.301
3	"Historical returns on the company's stock"	2.93	1.431
4	"Targets set by management"	2.94	1.759
5	"Targets set by investors / owners"	3.78	1.572
N=188			

Table 4.1.2.4 part of questionnaire includes five questions. In this table standard deviation and mean of questions are shown as per responses. Table shows that respondents are not much familiar with capital asset pricing model. Mean is 3.28 which mean that respondents are not familiar with this technique. They lie in neutral section. And standard deviation shows the high variation. Other market returns give minimum value of mean having 1.431 standard deviations. The range of all item response mean is between 2.69 to 3.78. Table shows that item 5 has highest mean and variation of this question is high.

Table 4.1.2.5 shows number of respondents and percentage. Total sample size is 212 and out of this respondents who determine cost on equity level is consist upon 117 sample size. Remaining 95 does not determine cost of capitals. Further analysis will be applied to 117 respondents who say yes.

Table 4.1.2.5
Participant response on determine cost as sub groups

Determination of cost of capital	Respondents	Percentage	Cumulative percentage
Yes	117	55.2	55.2
No	95	44.8	100

Table 4.1.2.6
Participant response on determine cost as sub groups

Determination of cost of capital			
No	Items	Mean	SD
1	"Weighted Average Cost of Capital"	3.9	1.342
2	"Adjusting the overall company group WACC"	3.23	1.494
3	"Targets set by management"	3.02	1.608
4	"Targets set by investors / owners"	3.26	1.806
N=117			

Table 4.1.2.6 part of questionnaire includes four questions. In this table standard deviation and mean of questions are shown as per responses. The values mean response lies between 3.02 - 3.90, it shows Pakistani firms are lesser familiar with these techniques. Item number one has highest mean as compared to other items. It shows that item one lies between neutral to low relevance. It is more Close to low relevance.

**Table 4.1.2.7
Participant response on determine cost as sub groups**

Determination of cost of capital percentage	Respondent	Percentage	Cumulative percentage
Yes	109	51.4	51.4
No	103	48.6	100

Table 4.1.2.7 shows number of respondents and percentage of their portion. In this table 109 respondents determine the cost and only 103 does not used.

Table 4.1.2.8 part of questionnaire includes five questions. In this table standard deviation and mean of questions are shown according to responses. The response of mean values lies between 2.63 – 3.41, it shows Pakistani firms are lesser familiar with these techniques. Item number three has highest mean as compared to other items.

**Table 4.1.2.8
Participant response on determine cost as sub groups**

Determination of cost of equity			
No	Items	Mean	SD
1	“Using cost of equity”	2.77	1.345
2	“Adjusting the company group cost of equity”	2.63	1.405
3	“Using qualitative approaches”	3.41	1.523
4	“Targets set by management”	2.83	1.578
5	“Targets set by investors / owners”	3.07	1.794

N=109

“Performance management and cost-of-capital”

**Table 4.1.2.9
These indicators followed by reporting style of performance on entire company or segment basis**

Management performance and evaluation of capital cost			
No	Items	Mean	SD
1	Revenues / sales	1.33	.471
2	Return on sales	1.32	.466
3	Profit measures, e.g. EBIT	1.30	.460

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4	Value-based measures	1.25	.431
5	Capital returns measures.	1.17	.380
6	Absolute capital measures	1.19	.396
7	Cost of debt	1.15	.359
N=212			

Table 4.1.2.9 part of questionnaire includes seven questions. This table is belonging to question no 1.2.1. The response of mean values lies between 1.15– 1.33, it shows Pakistani firms reporting standard. There are two options are provided to respondents. The items that are shown in figure 4.1.2.9 either reported as entire company group wise or segments wise. Item 1 has high mean it shows that revenue or sale reported in annual reports according to business units or segments. Standard deviation has also high variation at this point. Item 7 lies at low mean it also indicates the same result like item number 1. Variation at this point is low.

Table 4.1.2.10

Company describe clear cut targets for capital return as entire company

Determination of cost of capital	Respondents	Percentage	Cumulative percentage
Yes	133	62.7	62.7
No	79	37.3	100

Table 4.1.2.10 shows number of respondents and percentage of their portion. In this table 62.7% respondents got capital return targets.

Table 4.1.2.11

Company describe clear cut targets for capital return as entire company

No	Items	Mean	SD
1	Using the calculated cost-of-capital rate	4.32	1.178
2	Specification by management	3.30	1.714
3	Specification by investors / owners	2.88	1.775
4	Specification by Controlling / Finance department	2.21	.1.567

N=133

Table 4.1.2.11 part of questionnaire includes four questions. The response of mean values lies between 4.32– 2.21, it shows Pakistani firms reporting standard. The items one is above mean. It shows that calculation of cost of capital is the most favorite technique for Pakistani manufacturing sectors. Respondent give high relevance with this

technique. Variation at this point is also high. Item four has lowest mean it shows below mean. Variation is also high at this point.

Table 4.1.2.12

Company describe clear cut targets for capital return as segments

Determination of cost of capital	Respondents	Percentage	Cumulative percentage
Yes	86	40.6	40.6
No	126	59.4	100

Table 4.1.2.12 shows number of respondents and percentage of their portion. In this table 40.6% respondents Company describe clear cut targets for capital return as segments. And 59.4% respondent does not familiar with it.

Table 4.1.2.13

Company describe clear cut targets for capital return as segments

No	Items	Mean	SD
1	Using the calculated cost-of-capital rate	4.28	1.243
2	Specification by management	3.74	1.526
3	Specification by investors / owners	2.71	1.768
4	Specification by Controlling / Finance department	2.23	1.524

N=86

Table 4.1.2.13 part of questionnaire includes four questions. The response of mean values lies between (4.28– 2.23). The items one is above mean. It shows that calculation of cost of capital is the most favorite technique for Pakistani manufacturing sectors. Respondent give high relevance with this technique. Variation at this point is also high. Item four has lowest mean it shows below mean. Variation is also high at this point.

Investments and cost of capital

Table 4.1.2.14

Relevant investment techniques

Investments and cost of capital			
No	Items	Mean	SD
1	Cost comparison	4.32	1.102
2	Earnings comparison	4.56	.761
3	Accounting return	3.79	1.271
4	Payback period	4.24	1.339
5	Present Value	4.01	1.262
6	Internal Rate of Return (IRR)	3.17	1.668
7	Discounted payback period	2.53	1.494
8	Qualitative assessment	3.58	1.649

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9	Value-based methods (e.g. EVA)	2.59	1.488
N=212			

Table 4.1.2.14 part of questionnaire includes nine questions. This table is belonging to question no 1.3.1. The response of mean values lies between 4.56– 2.53. The items two is above mean. It shows that earning comparison technique is mused in Pakistan’s manufacturing sectors. Respondent give high relevance with this technique. Variation at this point is also low. Item seven has lowest mean it shows below mean. Variation is also high at this point. Discounted payback period is not used in Pakistan. Most of researchers irrelevance with these techniques.

Table 4.1.2.15

Relevant investment techniques

Evaluation of hurdle rates of different projects

Investment and cost of capital			
No	Items	Mean	SD
1	For all projects	3.30	1.644
2	Business units or lines of business	2.81	1.644
3	Geographical location	2.52	1.760
4	Type of project	4.20	.996
5	Individual projects	3.25	1.680
N=212			

Table 4.1.2.15 part of questionnaire includes five questions. All above projects are with accordance of hurdle rate. This table is belonging to question no 1.3.2. The response of mean values lies between 2.52 to 4.20. The items four is above mean. It shows that respondents use hurdle rate and hurdle rate depend upon nature of project. Respondent give high relevance with this technique. Variation at this point is also low. Geological location does not matter while calculating hurdle rate. Item three has lowest mean it shows below mean. Variation is also high at this point. Finance theory (Schlegel, Frank and Britzelmaier, 2016) suggests that hurdle rate have risk level according to the nature of project. The majority of the respondents agree with hurdle rates differentiated by type of project. Bennouna et al. (2010) conduct study at Canadian firms. They found that 63% of firms are using differenced hurdle rates.

Table 4.1.2.15

Evaluation of hurdle rates of different projects

Investments and cost of capital			
No	Items	Mean	SD
1	Cost-of-capital calculation	4.61	.866
2	Specification by management	2.85	1.781

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3	Specification by investors / owners	3.10	1.880
4	Specification by Controlling/Finance	2.75	1.459
N=212			

Table 4.1.2.15 part of questionnaire includes four questions. This table is belonging to question no 1.3.3. The response of mean values lies between 4.61– 2.75. The items one is above mean. It shows that respondents use hurdle rate by cost of capital calculation method. Respondent give high relevance with this technique. Variation at this point is also low. Specification by controlling and finance does not exit.Item four has lowest mean it shows below mean. Variation is also high at this point.

Table 4.1.2.16
Risk evaluation methods

Investments and cost of capital			
No	Items	Mean	SD
1	Different cash flow or earnings estimations	4.48	1.080
2	Different hurdle rates	2.48	1.653
N=212			

Table 4.1.2.16 part of questionnaire includes two questions. This table is belonging to question no 1.3.3. The response of mean values lies between 4.48– 2.48. The items one is above mean. It shows that risky project is account for by different cash flows. Respondent give high relevance with this technique. Variation at this point is also high.Different hurdle rates are less used.Item two has below mean variation is also high at this point.

Section III

4.1.3 “Influencing factor”

Table 4.1.3.1

Evaluation of hurdle rates of different projects

Cost and benefit of evaluation			
No	Items	Mean	SD
1	The determination of cost-of-capital is very complex	2.86	1.429
2	The calculation of cost-of-capital figures is costly	2.85	1.307
3	The calculated cost higher than the benefit	2.74	1.077
4	It is important that an adequate return on the company owners' capital is generated in the business	3.76	.909
5	Differentiating hurdle rates for investments	3.78	.883

depending on the risk makes sense

N=212

Table 4.1.3.1 part of questionnaire includes five questions. This table is belonging to question no 2.2.1. The response of mean values lies between 3.78– 2.74. The items four and five is above mean. It shows that respondent agree with item no 4 and 5. Variation at both points is also low. Item three has lowest mean it shows below mean. Variation is also high at this point.

Figure 4.1.3.1

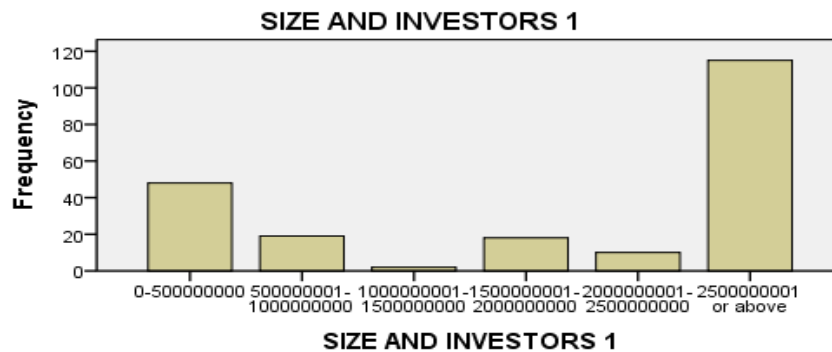


Figure 4.1.3.1 belong to question 2.2.1. This figure is depends upon the six portions each of them describe company size. X-axis shows number of companies and y-axis shows revenue/sales. First category belongs to 48 companies. Second category 19 companies exist. Third set have the minority with 2 companies. Forth belong to 18 companies. 10 companies fall in fifth section belong to 10 companies. Sixth have the majority of 115 companies.

Table 4.1.3.2

Ownership structure of company

Ownership structure			
No	Items	Mean	SD
1	Individual private investors or families	3.33	1.432
2	Institutional investors, e.g. banks, funds etc.	2.33	1.267
3	Private equity investors	2.31	1.179
4	Corporate / strategic investors	2.35	1.289
5	Management ownership	2.85	1.641
6	Free float	2.18	1.498

N=212

Table 4.1.3.2 part of questionnaire includes six questions. This table is belonging to question no 2.2.2. The response of mean values lies between 3.33– 2.31. The items one is above mean. Ownership structure

is in hands of individuals and families. Variation at this point is also high. Item three has lowest mean it shows below mean. Variation is also high at this point.

Table 4.1.3.3
Organizational structure of company

Organizational structure			
No	Items	Mean	SD
1	Legal structure	4.56	1.149
2	Business units or product lines	3.70	1.801
3	Regions or countries	2.17	1.655

N=212

Table 4.1.3.3 part of questionnaire includes four questions. This table is belonging to question no 2.3.1. Responses of mean values lie between 2.17 to 4.56. The items four is above mean. This section describes organization structure. Respondent give high relevance with this technique. Variation at this point is also high. Most firms do not exist in regions or countries. Item three has lowest mean it shows below mean. Variation is also high at this point.

Table 4.1.3.4
Structure of company

Company structure			
No	Items	Mean	SD
1	Degree of centralisation	3.33	1.432
2	Heterogeneity of local units (legal entities, business units etc.) in terms of business model / risk	2.33	1.267
3	Complexity of the organisational structure	2.31	1.179

N=212

Table 4.1.3.4 part of questionnaire includes four questions. This table is belonging to question no 2.3.2. The response of mean values lies between 3.33– 2.31. The items one is above mean. It shows that structure of company. In Pakistan degree of centralization is high. Respondent give high relevance with this technique. Variation at this point is also high. Item three is below mean. Complexity of organization structure does not exist.

Table 4.1.3.5
Professional education of CEOs

Professional background of CEO	Respondents	Percentage	Cumulative percentage
Engineering / Science	26	12.2	12.2
Marketing / Sales	65	30.5	42.9
Finance / Accounting	56	26.3	69.3
General Management	17	8.0	77.4

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Human Resources	12	5.6	83.0
Logistics / Production	21	9.9	93.9
Other	15	7.0	100

**Table 4.1.3.6
Structure of company**

Corporate culture				
No	Items	Mean	SD	
1	Our top management possesses sufficient knowledge of finance and accounting topics.	4.53	.931	
2	Our company is open to innovations in management.	4.26	1.078	
3	Our company is very financial and number-driven.	3.87	1.310	
4	In our company, the influence of the Controlling / Finance department is very high.	3.52	1.484	
5	Our corporate culture is rather conservative.	2.92	1.510	
N=212				

Table 4.1.3.6 part of questionnaire includes four questions. This table is belonging to question no 2.4.2. The response of mean values lies between 4.53– 2.92. The items one is above mean. It shows that top management of companies in Pakistan has excess knowledge of accounting and finance. Variation at this point is also low. Item 5 is below mean. In Pakistan corporate culture is broad minded.

In the table 4.1.3.7, dependence has been checked between chose method and size (firm size). In this technique each technique shown with the percentage usage (very high relevance).it is consider that cost comparison is the NON-DCF technique for a firm. This model shows strong preference from 501 to 1000 million rupees of size range contributing 71.4%. Capital budgeting techniques and their usage is shown. Earning comparison is also NON-DCF technique comprising 83.3 % share from 1001 to 1500 million rupees. This got highest preference as compare to other techniques. Accounting return is less preferred as compared to above NON-DCF techniques having the share of 41.8% from 2501 or above million rupees. In NON-DCF method payback period is the second most preferred technique with contribution of 71.4 % falls in 2001 to 2500 million rupees. Remaining section comprise DCF techniques. NPV got preferred 76.9% fall in 1501 to 2000 million rupees. Internal rate of return is less preferred techniques having 66.7 % share from 1001 to 1500 million rupees. Discounted payback period and value based method are relatively less used techniques having share 21.4%, 66.7% respectively and fall in 1001 to 1500 million rupees and 2501 or above respectively. The larger companies having the larger

size most frequently use pay-back, earning comparison and net present value.

Table 4.1.3.7

Company size difference in the relevance of techniques

Techniques	Revenue (Millions)					
	(Up to 500)	(501 to 1000)	(1001 to 1500)	(1501 to 2000)	(2001 to 2500)	(2501 Or Above)
Cost comparison	4.2%	71.4%	50.0%	61.5%	35.7%	48.0%
Earning comparison	53.7%	78.6%	83.3%	46.2%	35.7%	63.3%
Accounting return	31.3%	21.4%	16.7%	30.8%	21.4%	41.8%
Payback period	55.2%	28.6%	66.7%	38.5%	71.4%	65.3%
Net present value	40.3%	35.7%	66.7%	76.9%	21.4%	51.0%
Internal rate of return	26.9%	14.3%	66.7%	30.8%	21.4%	39.8%
Discounted payback period	11.9%	21.4%	0.0%	7.7%	0.0%	18.4%
Qualitative assessment	52.2%	64.3%	66.7%	30.8%	28.6%	44.9%
Value based method	13.4%	7.1%	0.0%	7.7%	0.0%	19.4%

Conclusion and Limitation

This research examines investment decisions and capital budgeting practices in manufacturing sector of Pakistan. Larger size firms use the DCF and smaller size firms use NON-DCF techniques. Smaller size firms use NON DCF techniques due to their limited capital. Every share holder tends to enhance his wealth. This makes huge pressure on the CFO's. The chased capital budgeting techniques are more closed to organization. The companies having the size from 1501 to 2000 million rupees use the NPV with strong identical tool. There are fewer firms that give free hand to manger to choose best one technique. But most of the mangers rely what statement pass from his owner for investment. Our result shows that net present value technique is more widely used by CFO's in DCF methods. In NON-DCF technique earning comparison is most preferred techniques. Internal rate is second most technique in NON-DCF methods. This study concluded that NPV is highly preferred technique and internal rate is less preferred technique.

This sample was limited to small size of Pakistani companies it might not cover entire population. This issue is not only existing in Pakistan, but the other countries and these practices are varying from country to country, person to person and firm to firm. It should be conducted from different countries. Furthermore, this research can be enhancing by adding upcoming influencing factors that affect capital budgeting techniques.

Policy recommendation and future contribution

Now a day capital budgeting is very necessary for every business entity. There are number of ways to evaluate and invest an underlying project. But while making any investment make sure it could not be

come across the sharia because sharia takes care of right of stake holders. We should excess the type of financing for example if day to day operations are the requirement than spontaneous financing is better we cannot make any other long-term financing. First excess the type of requirement than chose type of financing.

As of now the investment expenses incurred can earn profits in the future. The company can work with overseas banks such as the World Bank, the European Commission, the European Bank for promotion and Development and others. These are institution that organizes some unambiguous events to deal with investment decisions. The benefits of investment expenditure are to accomplish what can be achieved in two ways. The first buildings are fine asset, second investments in equipment or plants. When firm have unlimited funds, manager should choose some risky net present projects after securing his investment.

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