IMPACT OF OWNERSHIP STRUCTURE AND FREE CASH FLOW ON DIVIDEND POLICY: A CROSS COUNTRY ANALYSIS OF EMERGING COUNTRIES' MANUFACTURING FIRMS

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ABSTRACT

Thesis Title: Impact of Ownership Structure and Free Cash flow on Dividend Policy: A Cross Country Analysis of Emerging Countries' Manufacturing Firms

The purpose of the study is to investigate the relationship of the ownership structure and free cash flows on firm's dividend policy. The corporate ownership structure represents the pattern of shareholding exercised by the stakeholders in firm while free cash flows are the corporation's cash that can be distributed to creditors or stockholders which is not applied as working capital or for investments in fixed assets and dividend policy is the ratio of distributed earnings with respect to total earnings. Business entities possess different mixes of shareholdings in their ownership structure. Some business firms are management oriented while some are institution oriented regarding ownership structure. Firms mostly go for that proportion of shareholding that optimizes the firm's performance as well as payouts. Perfect and balanced mix of ownership structure and free cash flows impact the dividend policy of the firms.

This study is conducted to examine the impact of ownership structure and free cash flows on the dividend policy of listed manufacturing firms from non-financial sector in Pakistan, Bangladesh and India. In this study the geographical dimensions with comparative aspects are established. For this purpose 210 manufacturing firms listed at Pakistan Stock Exchange, Dhaka Stock Exchange and National Stock Exchange of India have been selected for the period of ten years from 2006 to 2015. The 70 firms out of 378 listed manufacturing firms are selected in Pakistan Stock Exchange perspective. The 70 firms out of 200 listed manufacturing firms are selected in Dhaka Stock Exchange perspective. The 70 firms out of 651 listed manufacturing firms are selected in National Stock Exchange of India perspective. The data is obtained from the firm's web financials and financial statements analysis published by the statistics department of central banks.

For the purpose of analysis, descriptive, correlation and panel data-based analysis is used in this research. The four panel data (fixed effect) models have been used to investigate the impact of corporate ownership structure and free cash flows on dividend policy of the firms. The country wise mechanism is employed to create different dimensions for the study. In these models two proxies are used to measure the corporate ownership structure i.e. managerial ownership and institutional ownership while single

proxy is used for free cash flows i.e. operating profit after tax and depreciation as independent variables. In these panel data (fixed effect) models dividend payout is used as dependent variables to quantify the dividend policy of the firms.

The results of the analysis showed that corporate ownership and free cash flows have significant impact on the firm's dividend policy in overall perspective of the study. The institutional ownership and free cash flows has positive and significant impact on firm's dividend policy in overall & Pakistan Stock Exchange perspective. The managerial ownership has positive and significant impact on firm's dividend policy while institutional ownership negative & insignificant impact on dividend policy in Dhaka Stock Exchange perspective. The only free cash flows have positive and significant impact on firm's dividend policy in National Stock Exchange of India perspective. The free cash flows have significant relationship with firm's dividend policy in all perspectives of study. The firms are institution oriented in Pakistan Stock Exchange while management oriented in Dhaka Stock Exchange perspective.

The results of the study for paying dividends showed that most of the firms are in agreement with the bird in the hand theory, catering theory of dividend and theory of free cash flows as well as agency theory and thus it is the one explanation used in paying of dividends in developing countries. The results also showed that dividends act as a signaling mechanism to investors. The free cash flows enable firms to provide signaling effect for investors that cause the relationship among the incorporated variables.

Key words: *Dividend policy, Corporate Ownership, Free Cash Flows, Leverage*

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God never spoils any efforts. I set my unfeigned and meek thanks before Him, Who is the only supreme authority and whose presence has been figured on the two words ′Kun Faya Kun′. Every tiny or massive entity moves with His permission. Countless thanks to Him, Who bestowed upon me the potential and ability to contribute a drop of material in the existing ocean of knowledge.

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″He, who does not thank to people, is not thankful to Allah"

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Now I am trying to acknowledge a tremendous debt of feelings for my parents whose prayers, sympathies stress my way towards success, whose hands always rise in prayers for me. Who always wish to see me successful in every field of life and without their moral supports, the present distinction would have merely been a dream. They always act as a light house for me in the dark oceans of life path.

Abid Ali

DEDICATION

I dedicate this thesis to my spouse and sweet kids. Without their patience, understanding, support and most of all love, the completion of this work would have not been possible.

CHAPTER NO.1

INTRODUCTION

1.1 Background of Work

The dividend policy is among the extensively discussed subjects about contemporary literature in finance era. The diversity in philosophies on apparent significance of dividend strategy, in determining firm's value, has made it as one of the key arguable subjects for scholars. This discussion is enriched to formative research study by Miller and Modigliani (1961), based on this perspective they confronted the principle that dividend payment improves firm's value and contended that in perfect and efficient capital market, the dividend judgment of a firm did not impact its value. On summarizing Gordon (1963) and Lintner (1962) reinforced "Bird-in-the-hand" philosophy and discussed, in the domain of imprecision as well as incomplete evidence, extraordinary dividend payout is allied with high firm's value. The stated above discussion has currently turned into large literature in finance era. However, the issue appears to be stationary at the same facts anywhere. Black (1976) entitled it a "Puzzle" whose sections did not appropriately composed. There is developing harmony, about no introverted aspect, alone may clarify payout comportment (Anil & Kapoor, 2008). The financial scholars have acknowledged a diversity of corporation precise dynamics that are vital in designing payout judgment comprising the ownership configuration.

The prevailing business philosophies upkeep the association among ownership configuration and payout patterns because of "Agency problem" (Easterbrook, 1984; Jensen, 1986) which contend that payouts delivers additional subsidy of the control wherever dynamic observing of corporate executives by the stockholders is misplaced (Rozeff, 1982). The payouts can theoretically alleviate this issue by confining the funds under executive's regulatory mechanism. The executives compel to the stock market more often for attainment of funds, therefore they place them in the hard analysis of funds providers in outside stock market.

Jensen (1976) contended that cost of agency must be diminished if insider owners expand their ownership in corporation, since this will line up the concern of both executives and stockholders by promoting the executives. Eventually the owners of business, however on the former side of this crucial ownership by executives, will give rise to new encounters of concern among insider owners and outsider owners. As executives will strain to accrue more reserves below their respective controlling mechanism whichever by decreasing dividend payouts or by preserving payout at short level. Moreover, "Clientele Effect Model", debates that investors are fascinated in the direction of the business whose payout strategy best corps their outlay intentions. The investors have to face diverse tax bearings on capital gain and dividend and suffer charge after they try to trade the securities. Consequently, their inclination in the direction of capital gain and dividend generate patrons that compel them to choose a corporation whose payout strategy is associated with their respective investment plan. According to the framework of system of taxation in developing countries, tax on the dividend is withheld at source however; stock gain is totally exempt from tax. Hence, this is not astonishing to consider that stockholders, particularly persons with small investments favor capital profit over dividends.

Additionally with ownership structure, corporate liquidity and financial position shows an imperative part in defining the intensity of payout. If a corporation is experiencing liquidity problem then it might favor to select stock payout relatively than cash payouts. Rendering to free cash flow Hypothesis of (Jensen, 1986), corporations favor to norm their liquid reserves to capitalize in lucrative ventures primarily and surpluses are funded at enduring.

Berle and Gardiner (1968), who first time presented the perception of parting of ownership patterns and executives, suggested that the unproductive use of liquid funds, in leftover of gainful investment prospects by the executives, origins encounter of concern between ownership and executive. Interest of payout and dividend reduces the free outlays available to executive, henceforth decreasing the possibility of employing it in low lucrative projects or on executives' rudiments. From business corporations' standpoint, cash produced from operations shows an imperative role in determining the quantity of payout; business corporations with larger cash flow laid from operations are estimated to be in an improved situation to recompense cash surpluses somewhat than corporations with adverse working cash flows. Since the compassion point of view about cash flow, former research works described that financially reserved

corporations hoard higher cash affluences and preserve large portion of the cash generated throughout the period, which states that liquescency is further imperative when corporations may not collect funds from outside market and liquescent resources are necessary for the investment in the forthcoming lucrative ventures (Afza & Slahudin, 2009; Khurana, Martin, & Pereira, 2006).

Almeida, Campello and Weisbach (2004) analyzed that corporations, experiencing financial restraints, will protect extra cash nowadays to finance forthcoming equity opportunities. Instinctively, raising propensity of redeemable cash out of the free cash flows would specify the accessibility of lucrative developments and financial restraints and therefore will condense the payout ratio of the corporation, delivered that corporations' access to outside finance is restricted to a convinced level.

Devarajan, Rajkumar and Swaroop (2006) suggested that previous data should not be capable to envisage current stock prices in a consistent mode from previous prices. This is an imperative subject specified the financial growth within the constituency, as well as the economic growths that have followed in the three states over the previous two decades (South Asian Financial Markets Review, 2010). Furthermore, while numerous research works have observed the subject of stock market proficiency for each country distinctly, limited have approved a widespread perspective and deliberated the three states as a regional grouping. This cavity in the literature astonishes meanwhile all (Bangladesh, India and Pakistan) stock traditional and historic ties which propose that associations may be present. The interactions between the stock markets of Bangladesh, India, and Pakistan are analyzed in the present research. Relationships among the stock markets are explored over long- and short-run time periods, as well as from the standpoint of both the volatility transmissions and yields between the countrywide equity indices of the constituency. An investigation of stock market incorporation in rapports of volatility transmissions and yields may be applied to comprehend either own or respective market's previous variances (or covariance) or yields may be applied to identifying that there are relationships between the background, cultures and independence of these three countries, the encounters occurred, among Bangladesh, India, Pakistan forecast current stock prices at the four stock markets in South Asia being analyzed.

Additionally inter associations among the stock yields and numerous indigenous and universal macroeconomic factors are analyzed to comprehend whether local or global factors may be applied to elucidate stock yields in the South Asian constituency. The interrogation of whether or not the stock exchanges in the South Asian region are weak-form resourceful is inspected by observing the inter-dependence between these market's yields as well as any relationships between the performance and efficiency of these markets and financial variables. Additionally, in order to examine whether the relationships among the markets have transformed over the time span and with the incurrence of events with respect to international significance, the entire period considered in this thesis, from 2006 to December 2015, is divided into the two sub-periods (pre- and post-September 2010).

The decision for the payout of dividends is among the foremost components in the corporation policy of payout; therefore, it has established massively relevant within the literature in finance. Dividends are reflected by the payout made to the stockholders for their participation in the establishment of funds with respect to corporation and the recompense for supporting the intrinsic risks of a business. In this scenario, the executive team of the corporation articulates a dividend payout policy with respect to the distribution of the earnings conferring to their respective contributions to the corporation. This dividend payout policy significantly impacts the value of the corporation, as there should be equilibrium between the development of the corporation and the payout policies with respect to dividends.

It is stimulating for executives and financial administrators to adopt whether the turnover produced by the corporation moreover dispersed to stockholders or reserved by the corporation. Dividend payout is essential for both the managerial workforces and stockholders correspondingly, as executives have to resolve about the quantity and timing and stockholders have to resolve for making judgment on their asset portfolio. The dividends are imperious for both stockholders and corporations in diverse settings; it is as earnings for stockholders as well as pointer of corporation enactment. Executives also want to sort an impression to yield back reward, by way of a stock of incomes on their savings deprived of hurtful corporation's steady lucrative locus. Though, corporation has to tolerate prospect cost since it reduces prospects for corporation to capitalize in new auspicious developments. Here one problem does not seem to concluding elucidation that either dispersal of dividend fundamentally nurtures stockholder

wealth or not. Stockholders examine qualified executives who requisite entitled for an improved practice of the capitalized assets. On the other hand executives attempt to custom their understanding for captivating financing and investing judgments. The purpose of association is to exploit the value for stockholder's prosperity which fundamentally signifies ownership patterns in business.

The determination of this research work is to explore the impression of administrative and institutional ownership on dividend payment of corporations. The dividend payout fraction is the measure of dividends compensated to stockholders relative to the measure of total net profits of a corporation. The quantity which is not rewarded out in payments to stockholders is apprehended by the firm aimed at development. Dividend payout fraction will assist in decreasing the agency complications as well as this will also consider as an indication to bounce signal to the stockholders about the corporation's valuation. The dividend payout ratio can be prejudiced by the patterns of corporate ownership structures.

The emphasis of this research work is to explore the effect of free cash flows and ownership structure on the dividend policy. The patterns of ownership arrangement are very imperious and persuasive dynamic in defining the competency of the marketplace by providing evidence about two substantial stuffs. First, it will display the degree of risk divergence of stockholders. Second, it will provide evidence about the conceivable agency difficulties in the administrators of the corporation. They additionally originated that there subsisted a substantial association among dividend payout ratio and patterns of ownership configuration. The corporation's control configuration impact the dividend strategy and that enormous and foremost stockholders in a authority construction may produce secretive profits which they do not support to stock these paybacks with the marginal stockholders.

There are diverse types of stockholders, but the managerial stockholders and the institutional stockholders have a larger control over the corporation's strategies as paralleled to other types. This research work provides assistances to stakeholders because they may achieve support in modifying their investment tactics. They may accomplish evidence with respect to dividend payout ratio of business designed by management owned, private and public corporations with respect to its ownership patterns. Finally they may capitalize in such like corporations that are giving extra short-term incentives or capital gains with respect to stockholder's perspective.

The interrogation frequently raises that why corporations dispense dividend. It has been the request of consideration and the emphasis of research work since long time. The payout strategy regarding dividend has reflected the more arrogant strategy in the corporate strategies. Dividend dogma is an important controller device to decrease the contradictory benefits of the stockholders and executives since the stockholders are fascinated in receiving dividends, but executive's favor to preserve earnings. The executives want to preserve earnings for sustaining higher assess over the resources.

The corporate governance established enormous courtesy as it deals with the agency malfunctions. Jensen (1986) and Rozeff (1982) contended that the corporations to improve the agency malfunctions could apply payout strategy regarding dividend. Rendering to them, if dividends are not distributed to the stockholders, the executives will initiate employing these funds for their secretive settlements. Dividend strategy benefits the corporations to distinguish that how they may be device for agency overheads by supervision of the Payout strategy. It is contended that by allocating the payouts to the stockholders, the management control over the capitals would be diminished.

Stouraitis and Wu (2004) recommended that the dividend might be pragmatic to crush the overinvestment complications of corporations. Dividend plan will not only contribution in decreasing the agency outlays but will also turn as a indication to give evidence to the stockholders regarding the corporation's valuation. The dividend payout may be prejudiced by the corporation ownership patterns. The emphasis of our research work is to examine the upshot of ownership patterns on the dividend strategy.

Da Silva and Leal (2005) debated that ownership patterns are very arrogant and important dynamic in determining the productivity of the marketplace by giving material about two substantial things. First, it will display the degree of risk divergence of stockholders. Another, it will give evidence about the conceivable agency difficulties in the executives of the corporation. They more established that a sturdy association subsists among the dividend strategy, governance configuration and arcade valuation.

The determination of research study is to examine the association of the dividend strategy with the managerial ownership patterns, institutional ownership patterns and the concentrated institutional ownership patterns about developing markets. Our research work will demonstrate to be diverse because numerous studies have been accompanied in urbanized countries to

discover out the association amid the ownership patterns and dividend strategy but Pakistan is evolving economy with diverse traditional traits, values, beliefs, norms, religion, and life style etc. The study has alienated in to diverse sections. First segment comprises a transitory overview of the research topic with implication of the effort. Second segment delivers a structure based on preceding literature. Diverse hypothesis has established based on the diverse philosophies and experiential studies. Third segment clarifies the design for methodology of the work elucidating the data collection, sample size, methodology, models and definition of variables. The fourth segment displays the statistical analysis of the study where descriptive statistics, correlation as well as stepwise multiple regressions has employed. In fifth segment a deduction has delivered and at the end in sixth segment references has been given.

The decision of dividend policy is one of the most imperative decisions taken by the top executives of corporation. This decision has had an impact on the stockholders of the corporation, reinvestment opportunities, growth and valuation of corporation, agency relationships, and corporate governance. Dividend strategy has been observed as a problem of interest in the previous literature. To address that issue extensive research has been carried out with respect to the dividends and payout policy, determinants of dividends, link between dividends and the corporation performance and issue of agency cost of dividends (Ang, Cole, & Lin, 2000; Bhattacharyya, 2007; Crutchley & Hansen, 1989; Elston, Hofler, & Lee, 2011).

The signaling theory, free cash flow theory and agency theory are the main theoretical backbones of the dividend policy. The agency theory explains that the absence of proper evaluation of executive's activities by stockholders of a corporation leads to provide indirect benefits to its managers. When corporation distributes high dividends it will reduce the available free cash flow for investment and force managers to seek outside financing. The outside market that they wish to access will monitor the utilization of funds and evaluate the corporation engagements. Based on these implications, the agency model predicts that dividends are systematically related to the kind of monitoring by the corporation's stockholders(Khan, Aamir, Qayyum, Nasir, & Khan, 2011).

The free cash flow theory justifies that the payouts of any firm depends upon the availability of surplus finance generated from ordinary course of business operations. A firm may easily pay the dividend to stockholders out of these surplus funds while on the side the firms having deficiency of surplus funds, have to face complications in their disbursements to

stockholders in form of dividend. These surplus funds are directly associated with the management performance efficiency regarding the business operations.

The signaling theory states that the management gives the signal to outside stakeholders regarding the announcement of payouts of dividend that may cause to purchase the share of firm which may results in rise in market price of share that maximizes the firm's value. The management may ultimately claim this credit in form of their efficiency.

The importance of with control over managerial activities by stockholders is highlighted in the agency theory. Stockholders represent their ownership patterns by way of individual, managerial, institutional and foreign. The different types of ownership patterns may have a variety of influence over corporations' decisions. Numerous scholars studied the impact of ownership patterns structure to dividend policy in developed countries but very few in the emerging countries. A work on the association among patterns of ownership structure and dividends in Malaysia shows a low explanatory power among patterns of ownership structure and dividend strategy (Sulong & Nor, 2008). A work on relationship between ownership patterns structure and dividends in UK by Short, Zhang, and Keasey (2002), found a high explanatory power between ownership patterns structure and dividend policy. The findings of the scholars have reported contradictory viewpoints in developed and emerging countries. Although the impact of ownership patterns structure on the dividend policy is imperative it has not been tested much in the Sri Lankan context as an emerging country.

Empirical evidence suggests that patterns of stock ownership in Sri Lanka are highly concentrated (Samarakoon, 1999; Senaratne & Gunaratne, 2008). The managerial owners, individual owners, institutional owners, foreign owners and family owners are present in most of the Sri Lankan business corporations. These different kinds of owners in a corporation setting may have different interests with their power and authority. The composition of ownership patterns structure does not influence dividend policy uniformly over the countries and hence the impact of dividend strategy to the ownership patterns structure has been an interesting topic in the recent previous across countries. Thus in the context of a developing economy, ownership patterns structure may show a major role in understanding the dividend policy of a corporation and in mitigating agency problems. As an emerging country, in Sri Lanka, doing a research under different ownership patterns and dividend payout is much more imperative as it can provide more insight to corporate business corporations and the stockholders.

As Sri Lanka is an emerging country the impact of ownership patterns structure towards dividend policy has been tested in a few research works and only one published article is available in the previous literature according to our knowledge. Therefore we intend to fill that gap by working the impact of ownership patterns structure towards the dividend policy by considering the different classes of ownership patterns structures.

The next section of this article reviews relevant literature on dividend policy and ownership patterns structure, while the third section presents the basic research methods and model specifications. The fourth section presents and discusses the data and the final section presents major findings and the conclusion.

1.2 Theoretical Based Evidence

A theory presents a systematic way of understanding events, behaviors and/or situations. A theory is a set of interrelated concepts, definitions, and propositions that explains or predicts events or situations by specifying relations among variables. So the most popular and relevant theories are here stated below;

1.2.1 Theory of Dividend Irrelevancy

For the first time the irrelevancy model of payment about was sightseen by (Miller & Modigliani, 1961) that designates that dividend payout has no impact on worth of corporation as the value of the stock in proficient arcade. They recommended that worth of corporations prejudiced by the degree of revenue engendered by the resources employed in business corporations although it does not dependent on degree of dividend distributed. This existing attitude was concentrated on superlative assumptions about proficient and faultless nature of stock market. They acknowledged that there would be;

- No variations amid the taxes on dividends payout and stock gains
- No charge concerning the agency
- Most of the shareholders will be delivered cognizance of regularity of market statistics

Most of these conventions were unrealistic and remained not being true (Glen, Karmokolias, Miller, & Shah, 1995).

1.2.2 Theory of Bird in Hand

The viewpoint of bird in hand philosophy describes that stockholders favor dividends payment as they require support on dividend payment of the business corporation in hands (current) is of supplementary substance as associated with the forthcoming worth of distributed dividend. On behalf of example extraordinary level of current dividend reduces uncertainty regarding the forthcoming cash flows, the larger payout fraction will diminish the cost of investment, and hereafter upsurge the worth of stock, therefore by offering extraordinary payout the financial worth of the trade corporation might be improved (Gordon, 1963; Lintner, 1962).

1.2.3 Theory of Tax Preference

According to this theory, low payout of dividend diminishes the cost of capital, increases the market worth of stock, and consequently nurtures the corporation's worth. This assumption is entirely originated on the deduction that gains on stocks are being applied tax with minor rates as compared to distributed dividends. Moreover, dividends payouts are being taxed at larger rates promptly, whereas taxes on the capital gains with lower rates are deferred till the securities stock is being sold out actually. Such kind of tax incentives of equity gains about dividends ready the stockholders to prefer business corporations which preserve maximum part of their retributions as compared to dispense out them as dividends payouts and are not ready to dispense large tax. Therefore, a diminutive dividend payout ratio will diminish the cost of equity and increases the stock price (Litzenberger & Ramaswamy, 1980).

1.2.4 Theory of Catering the Dividends

This theory proposes that the option to distribute dividends is assessed by leading stockholder's pursuit for surplus payouts. When a financier puts a premium for surplus bursars on share price, executives caters by dispensing dividends to stockholders, and by not distributing when stockholders prefer non distributers (Baker & Wurgler, 2004).

1.3 Problem Statement

Miller and Modigliani (1961) confronted the universal phenomena that dividend payout choices are not relevant to ownership structure and availability of finance in perfect capital market. In imperfect capital market the dividend decisions are relevant to ownership structure and availability of finance. In such an arcade the cost of internal finance is lower as associated to outside finance (Myers & Majluf, 1984). In imperfect capital market when stockholders change their ownership interest in order to obtain controlling interest and participate more actively in decisions making through exercising voting power to avail indirect benefits, can influence the corporations dividend decisions, as more access to information. The payout policy of the firms is also designed within the availability of surplus finance. The stockholders lay stress on the payout irrespective of level of surplus finance in form of free cash flows. Dividend decisions are also effected due to corporation size as previous research works argued that small size corporations face the problem of financial constraints as compare to large size corporations. In this work, the focus is to check the impression of ownership structure and free cash flow on firm's dividend decisions relating to manufacturing corporations listed in Pakistani Stock Exchange, Indian stock exchange and Dhaka stock exchange.

1.4 Research Questions

- Does ownership structure have any impact on dividend policy in manufacturing corporations of Pakistan, India and Bangladesh?
- Does free cash flow have any impact on dividend policy in manufacturing corporations of Pakistan, India and Bangladesh?

1.5 Research Objectives

- To explore the relationship among ownership structure and dividend payout policy in manufacturing corporations of Pakistan, India and Bangladesh.
- To explore the relationship among free cash flow and dividend payout policy in manufacturing corporations of Pakistan, India and Bangladesh.

1.6 Contribution of the Study

The contribution of this research work, to recognize the relationship among dividend policy, free cash flow and ownership structure with recent data of PSX, DSE and NSEI manufacturing corporations and also a cross country analysis of emerging countries like Bangladesh, India and Pakistan. This research study is established on large sample size along with most recent data of listed manufacturing firms with three geographic based dimensions of study with leverage as control variable.

1.7 Significance of Study

This research study will be useful for the commercial and corporate investors who are interested in firms of manufacturing sector. Free cash flows and patterns of shareholdings have association for the Dividend payout of manufacturing firms and decisions regarding capital budgeting that are an imperative perception for stakeholders which are looking for trustworthy informative evidence, to measure the firm's performance in future.

This study may also be beneficial for the management of the companies as they will have to keep notice of this association while forming their policies regarding firm's payouts by considering the surpluses and ownership configuration as well as improving operating cash flows for making their corporations capable to disburse regular and high dividend payouts that will eventually promote the market value of their equity stocks.

This research study would also be helpful to legislative authorities of corporate laws to dishearten concentrated institutional and insider shareholdings in corporations and to give due security to minority stockholders against expropriation of respective rights.

For new researchers, it will widen the scope of theoretical framework regarding proprietorship configuration by providing intuitions about association between payouts prospects and other major financial decisions. By taking into account the new dimensions of finance era in research, they may be able to explore the better association by considering the importance of the variables described.

For professionals, it will provide assistance to consider that how numerous financial decisions that may have influence on the corporate earnings accessible to stockholders and for the investment prospects under different situations. For practitioners, it will also portray some knowledgeable considerations regarding the encounters that may arise due to the pronouncements engaged under specific proprietorship configuration inside the corporation.

1.8 Research Gap

Literature evidenced momentous effect of ownership patterns on corporation's dividend decisions. But no single work is found on the impression of patterns of ownership structure on dividend payout in the context of Pakistan's listed manufacturing corporations and also cross country analysis of emerging countries like Bangladesh, Pakistan India (Afza & Slahudin, 2009; Stouraitis & Wu, 2004). So this work fulfills the said research gap. Furthermore, this work will also capture the influence of ownership patterns on dividend payout in presence of free cash flows. Lastly the work will use latest data to capture the influence of ownership patterns and free cash flows on dividend payout in Pakistan stock exchange, national stock exchange of India and Dhaka stock exchange.

1.9 Organization of the Work

The residual portion of this research work is systematized as: chapter two is about the literature review focusing on the prevailing association among dividend payout, corporate ownership patterns and corporation's performance. Chapter three encompasses the methodology in research and development of hypothesis. The chapter four elucidates the experiential results and discussions. Chapter five covers the deduction, endorsements and instructions for the forthcoming research works.

CHAPTER NO.2

REVIEW OF THE LITERATURE

2.1 Introduction

The existing works is enriched with the hypothetical clarifications and practical confirmation regarding the corporation on the conduct of business payout strategy about dividend. Many academics have examined the effect of ownership configuration on dividend payouts, however very few of them have reproduced quantity of stocks apprehended by executives and cash flow sympathy as essentials for payout strategy regarding dividend. The prevailing works on essentials of payout strategy regarding dividend presents its ancestries in the fabled broadside in which he instigate the disparities in incomes and prevalent dividend rates expresses as the supreme arrogant factors of an organization's dividend calculation by (Lintner, 1962).

Miller and Modigliani (1961) projected the triviality supposition and demonstrated that in a flawless stock market corporation's dividend valuation is not an objective of corporation's value at all. All over the preceding fifty years period, the insistent nature of conversation on payout strategy regarding dividend has shaped an satirical portion of fiction in which the conventional of the academics suggested that the payout of dividends has an expectant influence on corporations' value however on the other side various scholars have discussed that payout of dividends impact the corporation's value dispiritingly, still numerous others ponder that dividend finding is not an object of corporation worth and have no considerable expression on corporations' deceptive financial locus.

Jensen (1976) engrossed on the theme about Agency Cost Postulate and designated that dividend confines the reserves under supervision control, consequently employing them beneath severe stock market study. This moderates the proprietor's accountability to achieve the eminence of financing and to control the payout on executive rudiments.

Baker and Wurgler (2004) suggested the other aspect of the portrait in their own Catering Philosophy and supposed that executives must offer inducements to stockholders conferring to their suggested of investment, this is the approach to furnish the stockholders by disbursing uniform payments when stockholders offer premium for dividend distributing corporations as compared to not distributing surpluses when they approve non-distributing corporations.

Easterbrook (1984) conversed that payout of dividend conserves the corporation in stock market wherever the observing is less expensive then it also diminishes the intensity of risk exercised by executives and diverse groups of investors. Mayers (1984) anticipated Pecking Order Philosophy, discussing to that a corporation monitors a procedure in placement of coffers for reserves, principally reserved earnings are utilized that are less expensive means of coffers trailed by equity and debt as the means of funds.

Fama and French (2002) verified Trade-Off and Pecking Order philosophies concurrently and envisaged that more worthwhile corporations presents higher dividend payouts, corporations with extra investment expresses lower payouts and the association among dividend payout and leverage is adverse. Gordon (1963) and Walter (1985) promulgate Bird In Hand Model and deliberated that stockholders favor the cash in hand (cash dividend) as compared to achievable future anticipated profits (Gain on Stock). Bhattacharya (1979) strengthened Signaling Premise, rendering to which dividend abbreviates the information disproportionateness among executives and stockholders by producing signal with respect to the corporation's forthcoming growth prognoses.

In buildup to the surplus payouts philosophies, prevailing literature also transports realistic corporation on defining dynamics of dividend payout policy practically from each portion of the world. Mahapatra and Sahu (1993) applied Lintner's Model of Dividend to examine long run estimated dividend payout in Cotton and Textile Industry of Indian from a trial of 50 trade corporations with issued stock of Rs. 1 million or more covering the for period of 1946 to 1963 and originate that anticipated dividend payout ratio and response coefficient are contrariwise related in the long term. He contended that certain payout is explicable in terms of discrepancy of net revenue, the degree of managerial dogmatism, and the extent of importance devoted to dividend solidity.

Rodriguez, Ahmed and Shah (2008) explored conclusive dynamics of payout strategy regarding dividend with a sample of 320 business corporations listed at KSE in developing

economy of Pakistan for the for period 2001 to 2006. Principally, they investigated (Fama, 1974; Lintner, 1962) recommended models that were the addition of slight modification model by applying Panel based regression and recognized that Pakistani corporations depend more on present retributions and preceding dividend to hit their dividend payout. Furthermore, they investigated the elements of dividend payout and originate that corporations with steady constructive net earnings disburse higher dividends. Additionally, the ownership patterns absorption and market liquidness are definitely associated with dividend payout ratio but development prospects had no impression on dividend payout and size of the corporations found to be destructively and meaningfully related with payout.

Mehar (2005) has transported the benchmark to my Research work. He concentrated on the featuring part of company governance with respect to the dynamics in scheming dividend payout policy, while, Ahmed and Javid (2008) discovered the impression of overall corporate fonts on dividend payout. Though, cash flow that is comparatively more vital than simple profitability was not deliberated by both research works. The cash flows are further valuable than accretions in forecasting dividend variations meanwhile cash flows are supplementary direct liquidity estimation (Charitou & Vafeas, 1998). With respect to ownership configuration, (Mehar, 2005) suggested that amplified ownership structure by directors upsurges the corporate dividend payout, though, in Pakistan wherever widely held business corporations have focused family ownership configurations and executives' practices are not powerfully supervised, managerial ownership configuration is anticipated to have adverse affiliation with dividend payout. Consequently, the contemporary work endeavors to discover the impression of ownership configuration, cash flow sympathy and operational cash flows on dividend payout behavior of business corporations in developing economy of Pakistan.

2.2 Ownership Structure and Dividend Policy

Mahapatra and Sahu (1993) applied Dividend Model of Lintner to experiment long run required dividend payout in Textile Cotton Industry of Indian from the sample of 50 corporation wagering paid up capital of more than Rs. 1 million covering the period dated from 1946 to 1963 and generate that the long run estimated dividend payout ratio and reaction coefficient are inversely connected. He appealed that sustenance of payout is explicable in rapports of variation of net revenue, the degree of executive dogmatism, and the quantity of significance dedicated to payout constancy.

Jensen (1976) engrossed on the subject of postulate of agency cost and specified that payout confines the reserves under corporate control, therefore trouncing them under extreme stock market examination. This decreases the accountability of owners to attain the worth about speculation and to regulate the payout on executive fundamentals. Baker and Wurgler (2004) unfilled the additional aspect of the depiction in their Providing Philosophy and demanded that business must give encouragements to stockholders giving to their strains, this is technique to deliver the stockholders by disbursing even payouts when stockholders realize premium on profit against shares disbursing corporations and by not disbursing profit on shares when they good turn on non-distributing business corporations.

Michaely and Grinstein (2005) show an association between institutional ownership and dividend transfer rate. The writers improve that this upshot is due to the various that actions supported out by them. Cook and Jeon (2006) patterned this finding on a sample regarding Korean corporations. Renneboog and Trojanowski (2007) display, institutional investors found pledge for the security of sectional shareholders' stakes mostly in a state perfect by little security of shareholders and an ownership for applied (Ginglinger & L'Her, 2002). Better upkeep has been compensated to the tending part of institutional investors about dividend policy oriented literature. A number of studies examined the influence of institutional investors on dividend rubrics of corporations listed at emerging markets; however, they typically described indication subordinate two conflicting arguments.

The agency philosophy efforts on mitigating the encounters of welfares between directors and shareholders by parting between ownership structure and control power. Executives in Saudi Arabia are very frequently contacts of the regulatory family that may worsen recommended by (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000) for an unstable data panel, collected of 2,274 corporation-year annotations of 254 listed business corporations (BM & Bovespa, 2008) in the period 1996-2012.

A significant theoretical literature, with Lintner (1962); Miller and Rock (1985) propose that corporation dividend policy is intended to disclose earnings dimensions to investors. Fama (1974) suggested that corporations a friary set their designated level of dividend and attempt to stick to it. Also, nearby might be interrelation among agency cost and payout rule of profit on share. Warrad, Abed, Khriasat and Al-Sheikh (2012) examine a large sample about bond

contracts originate collected on contest between shareholders and bondholders on the dividend selection.

Feldstein (1983) convey a concept of market reliability to elucidate why corporations that achievement about the value of their shares and bonuses. Modigliani and Miller (1961) in their respective trendsetter work assess the influence of dividend policy on the current price. They initiate no dividend strategy is better as compared any other dividend policy and that it is so extraneous in corporation value and/or maximizing shareholders' wealth. The Michael C Jensen (1986) examined the reasons of variances of cross sectional internal shareholdings, profit on share and debt rubrics of corporations. They bargain that high internal ownership corporation chooses minor level of dividend.

Easterbrook (1984) appealed that sum of profit on share preserves the corporation in stock arcade wherever scrutiny is fewer inflated then it also drops the level of hazard occupied by executives and diverse types of investors. The accessible Pecking Order Philosophy of Mayers (1984), conferring to which a corporation tracks an order in operation of reserves for hoards, principally retained retributions are useful that are fewer expensive on the basis of reserves shadowed by equity and debt as the cores of funds.

Walter and Gordon (1985) accessible Bird In Hand Model appealed that stockholder errand cash in hand (profit on share) as compared to feasible future expectable proceeds (Gain on Stock). The reinforced Signaling Hypothesis of Bhattacharya (1980), interpretation to which profit on share declines the indicated indiscretion among executives and stockholders by if signal concerning the corporation's forthcoming development estimates. Trendy design to the payout theories about profit on share, prevailing studies also delivers experimental suggestion on foundations of profit payout strategy from each stock of the investment world virtually.

Rock and Miller (1985) and Pettit (1972) quantified that dividend dogma is a mark to spread the evidence associated to future triumph. This philosophy more elucidates the effects that the causes direct the signal to the foremost in order to produce a consistent relationship. Executives have further direct material about the corporation then the corporation's investors do nonetheless they are always reluctant to offer perfect information to the shareholders. Later the dividend strategy can be utilized for determination of evidence and it also sign for the corporation's future estimation capably.

Li and Zhao (2008) proposed that dividend strategy contributes a leading part since it can be applied to carry evidence to the stockholders about the corporation's value. They stated that ownership patterns are one of the significant variable impacts on dividend payout and the positive proposal between dividend and the earning drifts. He more clarified that present year dividend be contingent on the previous year dividends after governing the ignored heterogeneity. The recognized association has been varied for different ownership patterns constructions in different levels, and there was no unchanging effect from ownership patterns structure near the dividend policy.

Zeckhauser and Pound (1990) by conceited the recognized stockholder as a credible signal than dividends optional the negative association between dividends and the institutional stockholders. But by inconsistent that Short, Zhang and Keasey (2002) demanded that the institutional stockholders can display the activities of the corporations to decline the agency cost and it will signal to the market and the market also forecast the presence of institutional stockholders will provide the good news of the corporations' future forecasts. But these purposes of the institutional stockholders depend on the free proviso problem and their strength to have the future view of the corporation. Founded on these the signaling theory assumes negative association among institutional stockholders and dividend strategy (Mehrani and Eskandar 2011; Ullah, Fida, and Khan, 2012).

Angrawal and Jayaraman (1994) planned dividend strategy of all fairness corporations: A direct exam of free cash flow philosophy. Multiple regression examination was applied .The result found that dividend and managerial ownership are additional device for dropping agency cost of free cash flow in all justice corporations. This result cannot be simplify in the intellect that only all equity corporations were inspect, hence the results could not be simplify to other sector of the economy.

It was exhibited an adverse association between patterns of managerial ownership and dividend strategy. Their sample is composed of eight corporations listed in Nigeria covering the period of (2001-2010). However, other authors have a diverse dream. They suggested that patterns of high managerial ownership upsurge dividends. This elucidation declared to creativity assumption. In this situation, patterns of a high managerial ownership clues to a inventive

behavior amongst executives that affect in extraordinary dividends levels to regulate this comportment (Zwiebel, 1996).

Moreover, Vishny and Shleifer (1997) suggested that when stockholders family proprietors, grasp thoroughly full regulator, they slant to make secretive profits of control (like as expending the professional corporations' cash flow, distributing themselves hazardous salaries, if topmost managerial positions as well as board places to members of their family). In these situations, the obvious agency conflict is, accordingly, expropriation of wealth of marginal owners by the regulatory stockholders, which is the battle between controlling stockholders (principal) and marginal stockholders (principal), in other words the major–principal conflict. Similarly, Amit and Villalonga (2006) quantified that families tends to have more inducement to take marginal stockholders' wealth than any other regulatory large stockholders.

The research work conducted by Bradley, Capozza and Seguin (1998), covered the part of possible flow variability in cash as a source of payout strategy both empirically and hypothetically on the model for 75 REIT corporations for the period from 1985-1992 and instigate that payout ratio is lesser for corporations with advanced foreseeable uncertainty in cash flow, administrative for size and leverage and divergence of property level. Their respective deductions were same with evidence centered elucidation of payout strategy but not in a line with amplification of agency cost. A qualified research work of payout strategy in Japan and Australia was disclosed by the study of (Hu, 2002) representing that it was scrutinized the panel based data of frameworks from Nikkei 225 and 200 index of ASX by static outcome reversion perfect and established that payout strategy is certainly ostentatious by liquidness in Japan and by size in Australia and adversely by hazard. Industry upshot is originated to be substantial in both the republics. Bethel et al. (1998) displays that block-holders apply pressure on the executives to take appropriate actions or face hazard of being liquidated every time the corporation has a poor act.

Short et al. (2002) examined the conceivable recommendation between patterns of ownership structures and dividend strategy for the UK business corporations. They presented the major ratings for the UK, where the patterns of institutional shareholdings are assorted from those of the US. The results consistently yield strong endowment for the philosophy that a constructive recommendation occurs between payout strategy regarding dividend and patterns of

institutional ownership. In scheming, there is certain signal in establishment of the hypothesis that an adverse recommendation occurs between payout strategy regarding dividend and patterns of managerial ownership.

Z. Chen, Cheung, Stouraitis, and Wong (2005) discovered that when the monitoring stockholders hold popular of the stocks, a little dividend supply tax rate is predictable because the popular stockholder is risk opposed and considered self-financing to other sources of financing. In their research work on the outcome of ownership patterns on dividend strategy, (Faccio, Lang, & Young, 2001) found that the presence of numerous big stockholders diminishes disparity in Europe (because of monitoring), but deteriorates it in Asia (because of collusion). Most of this experimental research works emphasis on the simple attendance of multiple slab holders, and not on the features of individual slab holders.

Kumar (2003) examined the conceivable recommendation between ownership patterns, corporate governance and corporation's dividend strategy. He scrutinizes the payout behavior of dividends and the implication of ownership patterns for Indian business corporations ended the period 1994-2000. He found sustenance for the implication between ownership patterns and payout strategy regarding dividend.

Reeb and Anderson (2003) highlighted that family owners may contribute for their own respective interests over other investors; such as by declining corporation hazard, attractive their control at the cost of subversive proprietors and ill-treating insider stocks by contributing in ulcerative structures that value them. Wansley, Collins and Dutta (1995) show an adverse association between patterns of family ownership and dividend strategy. In this type of corporations, writers suggested the authenticity a large indiscretion of indication between family members who overcome managerial positions and outside stockholders. Definitely, a family corporation desires less to affluent its dividends performance. For listed Chinese corporations from 2003 to 2012, Lin et al (2017) found that corporations with higher signal irregularity are less tends to distribute dividends. They resolved this innovation by applying an example of listed Indian corporations for the period of 1994 to 2000. The author enhanced that family ownership raises profit ventures and instantaneous distribution of dividends. Chen et al. (2005) stated authoritative adverse proposition among dividend payouts and family ownership patterns of up to

10 per cent of the corporation's ownerships and a corporation inherent association for family ownership between 10 and 35 per cent for only small Hong Kong business corporations.

Wu and Stouraitis (2004) measured ownership patterns and dividend policy of Japanese corporations with difficulties of free cash flow. They originate suggestion in provision of the philosophy that a constructive relationship transpires amongst free cash flow and dividends and its better about low-growth corporations than that of high-growth corporations .This expresses that corporations with low growth have the conceivable to payout higher dividends by exploiting a slight amount in investment spending.

In the same strain, Lincing (2005) proposed intentional patterns of Ownership Structure and Dividend Strategy of Japanese listed Corporations with Problematic of Free cash flow, by applying 986 annotations of Japanese listed corporations between the period of 1992 to 2000, exposed the implications of the free cash flow philosophy with deference to the remedial role of ownership patterns construction in dividend strategy. The finding exhibited that positive relationship occurred between free cash flow and dividends and its superior for corporations having low-growth than that of corporations having high-growth. The exercise suggested that free cash flow model is applicable to sympathy about corporate dividend policy in Japan. Therefore, efforts of courtesy between stockholders and executives regarding the payout strategy differ with the development hazards.

Renneboog and Trojanowski (2007) scrutinized payout rubrics of listed British corporations at the London Stock Exchange for the period of 1990s. In a dynamic panel based data regression analysis, he told designated payout ratios to a widespread group of ownership structure variables that presents the sample corporations. The main judgment is that the payout strategy in the UK is evocatively associated to ownership patterns in businesses. The incidence of vigorous block holders nosedives the affiliation between the business payout and the payout restraints.

Grinstein and Michaely (2005) presented, ownership of institutional investors is absolutely associated to the dividend distribution rate owing to the guiding tenacity suppressed by them. This outcome is recognized in case of British business corporations by Short et al. (2002) and Korean business corporations by (Jeon and Cook, 2006). Pindado and De la Torre (2005) exposed, consistently, that in the Spanish and the British settings, the appearance of

holders in modification portions recuperates, in order to bind the problem of overinvestment, or the dividend payout ratio. Moreover, with little defense of stockholders in countries; welfares, institutional stockholders found assertion for the shield of potential stockholders' interests, predominantly when ownership patterns are applied (Ginglinger and L'Her, 2002).

Mancinelli et al. (2006) inspected the affiliation among payout strategy and ownership patterns by a sample of 139 Italian listed businesses. The results of the empirical scrutiny disclose that business corporations sort mediocre dividend payouts as the voting rights of the highest stockholder upsurge. Furthermore, the results also suggested that the presence of covenants among large stockholders strength explicate the inadequate nurture power of other `strong' non-controlling stockholders. Amazingly, Debt-equity fraction was devised to be certainly associated with profit on share payout and suggested that corporations are excited to raise liability to backing accumulative payouts in direction to refer a robust optimistic indication to institutional proprietors to progress standing and indorse admittance to investment.

Dhanani (2005) approved appraisal exercise alongside with subordinate financial and non-financial data corporation. The data about appraisal practice confined of topmost 800 corporations listed at London Stock Exchange (LSE). The survey determined to scrutinize empirically the dynamic implication of numerous schemes of payout in business corporations of UK to measure the degree to that these philosophies are prejudiced by business topographies of magnitude and manufacturing areas. The results quantified that UK based executives favor the overall premise regarding the significance of payout. Business corporations typically disprove the enduring dividend strategy for deal judgments.

Khan (2006) studied the ownership structure of 330 listed large corporations in UK, her outcomes designated adverse association between ownership patterns attentiveness and dividends. She further examined arrangements of ownership patterns and specified that ownership patterns by corporations of insurance business is absolutely related but separate ownership is destructively associated with payout strategy. He explored the association among business governance and profit payout on share for a board of Indian corporations for the period 1994-2000 and clarified the variance in payout attitude with the assistance of corporate financial configuration, financing probabilities, preceding dividends, earning tendencies, and the patterns of ownership configuration. He originate constructive affiliation of payout with making

propensities and investment ventures and adverse affiliation with ownership patterns and debt to equity ratio of business corporations and directors was unconditionally associated with dividend pronouncement, but formed corporate ownership patterns was detrimentally associated with dividend but he initiate no indication of affiliation of dividend payout and distant ownership patterns.

Al-Malkawi (2007) studied, from evolving economy of Jordan, the foundations of payout strategy by the board data regarding the openly dispensed corporations at Amman Stock Exchange between period of 1989 and 2000. Values from Tobin prerequisite with respect to magnitude of stock detained by patterns of insiders ownership and national ownership expressively trace payout whereas size, period and success were instigate to stand the conclusive dynamics of payout strategy in Jordan. The results intensely armored the Agency Premise and were about steady with Striking Order Premise but volatile with Indicating Premise. They reviewed the foundations of business dividend strategy in Jordan. Their moments suggest that the measure of stocks detained by national and insiders ownership patterns expressively disturb the extent of paid dividends. The size, period, and profitability of the corporation appear to because elements of corporate dividend strategy. The investigation of the Effect of Free cash flows on the Dividend Strategy and Financial Elasticity in listed corporations with 3 verdicts backing the striking order and agency costs hypothesis although do not support the signaling hypothesis.

Abdelsalam et al. (2008) documented a constructive proposition between institutional ownership and dividend strategy options of Egyptian corporate firms. Also, Manos (2002) established the influence of institutional ownership patterns on the payout ratios was positive of Indian corporations. Moreover, in states with little shield of stockholders; benefits, institutional shareholders found assurance for the guard of concealed stockholders' benefits, principally when ownership patterns is applied.

Guizani and Kouki (2009) specified that Tunisian corporate organizations rewarded out lesser dividends when they had progressive patterns of institutional ownership that is trustworthy with the contest that the aptitude of institutions in dealings of more operative checking diminishes the quest for the dividend-induced maneuver. Observing that that the governance code od Saudi Arabia impulses institutional stockholders to violently pursue to develop governance, revelation practices and presentation in Saudi corporate firms and by signifying to

hypothesis of vigorous performance by institutional investors that exercise control expedient for the good governance, they expressed the succeeding hypothesis: There is a constructive association between the patterns of official ownership and the dividend flow rate. He has originated that patterns of highly functional ownership structure seems to assign further dividends in listed Tunisian corporate firms and advanced the patterns about ownership presenting the five major stockholders, the advanced the dividend payout. They have detailed that their scores not upkeep with the verdicts by Modigliani and Miller (1961) dividend triviality philosophy rather it is a response to the favor of the largest stockholders.

Cuny, Martin and Puthenpurackal (2009) examine the origins of cross-sectional patterns of dissimilarities in insider ownership, obligation, and dividend rubrics. These rubrics are associated not only conventional, but also discursively, over their correlation with operational landscapes of corporations. To distinguish these properties, they scrutinize the factors of the three strategy ranges within a system of calculations. Their empirical results upkeep the hypothesis those patterns of insider ownership fluctuate systematically across corporations. Supplementary, patterns of high insider ownership corporations select lower echelons of both debt and dividends. Finally, the effects of accomplishment, development, and asset outlay on debt and dividend strategy support improved “pecking order” hypothesis.

Al-Kuwari (2009) inspected the grounds of payout strategies for corporations listed on Gulf Co-operation Council (GCC) country stock exchanges. His results suggested that patterns of government ownership, corporation size and corporation profitability have constructive and influence ratio has adverse impact on dividend strategy. His marks designated that corporations recompense dividends in order to decline the agency issues and preserving corporation standing. He more declared that listed corporations in GCC countries do not have uniform dividend strategy.

Chen and Dhiensiri (2009) investigated the origins of the corporate dividend strategy. Their verdicts favor theory of agency cost, deal cost and residual payout philosophy. They found that a profit payout ratio is confidently associated to the degree of ownership dispersal and destructively associated to the degree of patterns about insider ownership and corporations that involved fresh development in revenues incline to disburse lower dividends. They did not discovered sign to sustenance the dividend fidelity philosophy and the signaling philosophy.

Chai and So, (2009) offered that the business corporations are feast the free cash flow in the form of dividend, the business exertions to dedicate the reserves in the schemes with undesirable current worth, since the business with the high free cash flow are encountered with the more conceivable illustrative costs . He finalized that the uncertainty of the cash flow, life cycle, speculation ventures and descriptive discrepancy are real dynamics on the dividends.

Ramli (2010) inspected the upshot of great stockholders and dividend instruction of Malaysian business corporations by applying board data from 2002 to 2006. The patterns of ownership structure in Malaysia are applied; subsequently the pertinent agency clashes to scrutinize are that arises from the affiliation between large stockholders and marginal stockholders. The outcome shows that business corporation's favor higher dividend payout as the ownership of the largest stockholder rise. The magnitude of dividend payout is also larger when there is attendance of the considerable second largest stockholder in the corporation. Major stockholder or the intense stockholder is the stockholder who possesses directly and indirectly the huge portion in total equity of the corporation and the second largest stockholder is the stockholder next to the main stockholder who is not allied to the largest stockholder. The theoretical support of agency model considered that the slightest situation of dividend as regulate extra once the concentration stockholders with the control and encouragements to monitor executives progressions. He quantified that the patterns of ownership structure in listed Malaysian business corporations is applied. His investigation is originated on the listed business corporations in Malaysia for the period of 2002 to 2006 and elucidated that in listed Malaysian business corporations' controlling stockholders effect the dividend strategy. The presence of another main stockholder also has an assertive outcome on listed business corporations' dividend strategy. He educated that major stockholders traditional the higher encouragement from other chief stockholders to recompense out dividends. The agency viewpoint by revealing to patterns of ownership deliberation figures up two sentiments on association between ownership patterns concentration and the dividends. One belvedere is that the combat of interest rises between managers and the owners of the corporation can be tapering through applied ownership patterns.

Managerial owners controlled with stocks possessed by the Main Management Officer, personnel in the board of director and other choice makers and groups. The directors, efficacy perseverance permits for custom formation since they are appears to be as risk-averse persons

(Myers and Lambrecht, 2010). Most of the detectives documented the adverse association between patterns of executive ownership and dividend strategy. This is associated with the free cash flow model. It clarifies that executives are preferred to hold the corporations' equity under their respective control without assigning as dividend payouts. They specified that overwhelming the patterns of high executive ownership with voting power will discount the dividends as cited in existing literature.

Concentration proprietors have the curiosity in getting incentives ended their controlling supremacy and this will decline the managers' discretionary actions. Through that they can carry into line the executive's actions which lead to guard of marginal stockholders and upsurge of dividends. These predictions have positive upshot of patterns of concentration ownership on dividends (Nguyen and Harada, 2011). Supplementary lookout of this affiliation is that concentration proprietor's errand to have extra secretive benefits from prevalent free cash flow as it would tend to mediocre the dividend expenditures. This is forecast the adverse link between focused ownership patterns and the expenditures of dividends. They presented the negative impression among these two variables. They supplementary clarified that focused owners are disliked to distribute the dividend when the upsurge in profit or decline in arrears in the corporations. The free cash flow of the corporation vigor up with inflamed profit and decline in arrears and the corporation have the dexterity to distribute dividends, but this will bound by the courtesy owners through their personal benefits.

Numerous research workings revealed the institutional investors' movements would clue to lessening the agency snags. Reliant on above stated indication the agency philosophy envisages a constructive link between of patterns official ownership and dividend payout by reducing the accessibility of free cash flow in a corporation (Ullah, Fida, & Khan, 2012). They specified dividend strategy may be implied to make an indication on the corporation's future success. They recognized the dividends and institutional stockholder as signaling expedients. They reviewed the implication between the patterns of managerial ownership and dividend strategy by selecting 70 for the period of (2003-2010).They displayed a adverse rapport between patterns of managerial ownership and dividend strategy.

Afzal and Sehrish (2010) resolved this judgment that there is a link between executive ownership and the profit on share distribution ratio. The patterns of Family Ownership In most

emerging economies, trade corporations normally have controlling stockholders that hold authoritative portions of stocks, typically instituting families. They specified that family participations comprise directly in the association of their business corporations on approximately all cases; consequently, family control is a very real organizational governance procedure of scrutiny of managers to deliver more operative executives and direction, which tends to irrelevant agency cost. Though, interpretation to the works of Pajuste and Maury (2002), the hazard of expropriation of marginal stockholders is more noticeable in corporations measured by individuals. Connelly (2005) suggested that the dividend may not be a expedient for good governance in this type of corporations. Certainly, family stockholders have the control to apposite the other stockholders through the transferal of capital of the industry for their own account.

Hasnah and Nuraddeen (2015) initiated a optimistic relationship among dividend policy and block-holders of eight listed corporations for the period 2001-2010 in Nigeria. Thanatawee (2013) examined the link between patterns of ownership construction and dividend strategy in Thailand. The upshot demonstrates that corporation with patterns of big ownership concentration and an institution paralleled regarding individual is additional conceivable to distribute dividends.

Crisóstomo and Brandão (2016) postulated that a pattern of ownership concentration, proxied by the turnout of a major stockholder, in fact, has an adverse upshot on the dividend distribution. Thomson (2005) applied the dividend strategy as resources to check the agency difficulty among smaller and popular stockholders. Smaller stockholder, disclosed with being taken by the widespread stockholder, errand the dividend as compared to capital gain. The experimental assessments were completed for a sample of 990 business corporations over a period of 10 years. The results displayed an adverse influence of the governing stockholder on the dividend distribution. These results confirmed the premise of expropriation of marginal stockholders.

2.3 Free Cash Flow and Dividend Policy

Bhattacharya (1979) originated the actuality of situations for a non-dissipative signaling model and exhibited that dividends are cyphers for panorama cash flows. Gordon (1959) in his authoritative work proposed that uniform in turnout of perfect capital market, the authenticity of uncertainty regarding the upcoming cash flow, accomplishment to make the price of stocks beached upon the dividend strategy.

The flow of free cash is one of the major agency iniquities between the executive and the stockholders. Executives may deficiency to over capitalize, finance notwithstanding a deficiency of positive NPV projects, and they may allocate reserved earnings for their private benefits. Jensen (1986) analyzed that corporations which have a better "free cash flow" could dispense more profit on shares by reducing the agency costs related with flow of free cash. The hypothesis about free cash-flow of Jensen (1986) advised that if corporations have superfluous cash, it is healthy to distribute this cash as dividend in imperative to decline executive unrestricted reserves and, therefore, discharge agency costs associated with free cash-flow.

Agency model more elucidated that dividends deliver indirect control incentives in the deficiency of dynamic monitoring of a corporation's executives by its stockholders. High payouts diminish the volume of free cash flow for financing expenditure and it compels executives to pursue larger outdoor financing. Easterbrook (1984) and Rozeff (1982) have specified that larger observing and the assessment by external stock market that they have to acquiesce to benefit in crack to alleviate the agency encounter. That envisaged payout is scientifically associated to the sympathetic observing delivered by a corporation's stockholders and if the misunderstanding is poor, dividend seems to be high. The Signaling Philosophy supports that executives are the controllers in a corporation and stockholders are the proprietors of the corporations and there is a substantial indiscretion among these two revelries. Executives as controllers are conscious of the corporation inside indication although stockholders do not. Executives' accountability is to broadcast this first-hand indication for the opting the context. Nevertheless, they precede inflated but reliable measures to handover this indication among others.

In metamorphosis Loewenstein, Kato and Tay (2002) provided contradictory results that Payout variations indeed transmit signal about the corporation's free cash flows. However the free cash flow philosophy is to certain degree strengthened by the symbol in corporations' investment comportment, dividend strategy is not smeared by Japanese corporations to regulate the overinvestment challenges. The outcome expressed constructive association between free cash flow and dividend payout. The whole considerations propose that free cash has robust influence on the dividend payout policy.

French and Fama (2002) verified Trade-Off as well as Pecking Order theories and concurrently and decided that more lucrative corporations have higher dividend payout, corporations with more deal have lower payout and the association among leverage and payout is adverse.

Gugler (2003) scrutinized the relationship among payout and patterns of ownership and regulated structure of the corporation in Austria for the dated of 1991-1999. So the results specified that Govt.-controlled corporations involve in leveling of dividend, while family-centered corporations did not. He reviewed the association among payout and ownership patterns organizer for a collected panel data regarding 214 corporations from non-financial sectors in Australia for the period 1991-1999 by applying Ordinary Least Square technique and specified that government owned corporations were involved in payout flattening whereas domestic skillful corporations were not. In calculation, the state preserved corporations were most disinclined and domestic possessed corporations were less unwilling to censored payouts and also experiential that corporations with small growth chances optimally expel cash regardless of who panels the corporation.

In calculation, Adelegan (2003) studied the relationship amongst cash flow and payout variations in Nigeria. A sample of 63 cited corporations over a dated of 1984-1997 using adapted Letter-perfect as accepted in Charitou and Vafeas (1998). The results found imperative relationship amongst payout variations and free cash flow. The experiential results disclose additional that the association among free cash flows and payout variations be contingent considerably on the equal of development, the capital construction choice, and size of each corporation and financial strategy variations. But, these findings do not decisively comprise free cash flow. In Difference, they use functioning cash flows to clarify dividend variations since they

believe that working cash flow is an acceptable measure of liquidness. This measure has been exposed to be insufficient meanwhile they did not income in to explanation the effect of capital expenditure purchase for the dated.

Wei et al. (2003) examine the relative among dividend payout policy and ownership patterns construction employing 3994 explanations of listed Chinese corporations for the dated for the period 1995 to 2001. They found that there is a meaningfully constructive correlation among the public ownership patterns and cash payouts, but a meaningfully destructive correlation among the public ownership patterns and stock dividends. Wu et al. (2008) show that free cash flow, corporation success, level of obligation, asset chances and corporation size have a durable impact on payout results.

Frank and Myers (2004) keenly inspected the data regarding the sample comprising of 483 corporations from Multex Financier File by Ordinary Least Square regression methods to judge the impression of specific financial dynamics on the payout choice and originate that advanced Price to Getting is associated with greater payout due to lesser risk, and better insider and Institutional ownership patterns principal to inferior payout ratio that may be due to the motive that executives have an motivation to decrease dividends in seek to rise the likely worth of their ordinary choices conventional as managerial recompense.

Ayub (2005) deliberate the influence of corporation exact dynamics on business payout expenditures. He scrutinized 180 business listed corporations at PSX for the period 1981-2002 and stated that only 23% of excessive returns are slanted in to payout and enduring proceeds are applied for supplementary reserves and businesses initiate disbursing profit on share after a sure level about growth. Moreover, large numbers of stocks are detained by executives' principal to extraordinary payout and little standby reserves. He also originated liquescence as adversely however success, internal ownership patterns and booked retributions as categorically associated with distribution of cash dividend.

RezvaniRaz and Haghighat (2005) investigated with the title of "the examining of the association among the free cash flow and the obligation amount by seeing of the asset chances and measures" and also" the examining of the relationship between the free cash flow and the obligation amount by seeing of the investment chances and measures in the putative business corporations in Tehran exchange stock have applied. The research results presented that there

are the direct relations among the two variables of the free cash flow and the obligation amount in the recognized business corporations in Tehran exchange stock. The results of this investigation designate that in the expressive level of 5%, there are the expressive and constructive link among the free cash flow and the debt amount in the businesses with the low asset opportunity.

The business corporations with the low investment chances are predictable to have high cash reserves extra, due to the lack of suitable chances for capitalizing. The amount of obligation such businesses are following of the cash coffers surplus and this is presentation that the savers and the national creditors in investment and creditability to the businesses of members of exchange stock, have been care the national financial providing basis and the significant standard calculation of the debt reimbursement, i.e. the free cash flow. Thus they decided that in the expressive level of 5% there are the expressive and positive relationships in the big business corporations between the debt amount and free cash flow. Meanwhile that in the big businesses, owing to with of the financial providing ways (more bond) towards to the other businesses, are predictable to have the large free cash flow (Sity Rahmi, 2011).

Ben Naceur, Ghazouani and Omran (2007) investigated dividend strategy of 48 corporations that are listed at Tunisian Stock Exchange for the period of 1996-2004 and originated that Tunisian corporations depend on both on existing retributions and preceding payouts to adjust their dividend expenditures nonetheless the previous appears to be additional swaying. Using lively panel based regression and they suggested that gainful corporations with more steady earnings can give great flows of free cash and thus distribute large payouts as they allocate huge profit on share after they are mounting debauched but the liquescency of the capital market as well as size were adversely linked, and ownership patterns attention and financial influence had no substantial impression on payout strategy. DeAngelo and DeAngelo (2006) in research works as the title of "Dividend payout Policy and the accrued benefit in the Capital Structure" decided that the life series, success and investment chances are effective influences on the dividend.

Papadopoulos and Charalambidis, (2007) analyzed the impact of corporation’s exact features on payout of dividend of 72 business listed corporations at Athens Stock Exchange for the period of 1995-2002. They divided the example into trade and manufacturing corporations

but established no statistically imperative variance in payout of wholesale and manufacturing corporations and optional that flow of cash is the most significant profit payout on share causes and is definitely allied with profit payout on share.

However, another trend of study forecasts a adverse association among the attendance of recognized depositors and dividend strategy. Certainly, institutional stockholders act as a inspection expedient on the corporation's executives, therefore dropping, in general, the essential for high dividend payout. In adding to this, given the rank investors assign to any scheme and reinvestment, stockholders favor to recollect and invest profits somewhat than allocate them.

Lately, Sujjata and Anil (2008) inspected the causes of dividend payout in Indian Evidence Knowledge Sector for the period of 2000-2006 and originated liquidness and yearly Beta (erraticism in retributions year to year) the merely imperative causes of dividend payout. Jakob and Johannes (2008) in their work on payout strategy in Denmark recognized 3948 corporation-year explanations from 356 corporations through 1988 to 2004 and start that the dividend distributors in Denmark are considered by constructive distributes, high Return on Equity, low instability in Return on Equity, high booked retributions, big size, and expense of dividend in preceding year but no association is created among marketplace to book ratio, influence, ownership patterns and payout option in Denmark Further currently in Pakistani situation.

The investigation's results of Hushmand et al, (2009) in Tehran conversation stock exposed that the business corporations with little investment chance, there is imperative and optimistic association between the extra changes and the free cash flow. As well as, the results presented in the big business corporations; there is an expressive and constructive association among the free cash flow and divided strategy, due to consuming the financial providing power and more bonds.

Ahmed and Javid (2009) find that the gainful corporations with more constant net earnings have higher free cash flows and consequently distribute larger dividends. They also specify that the ownership patterns attentiveness and market liquescency have the constructive influence on dividend payout rule while the leverage, investment chances, market capitalization and corporate size have the adverse impression on payout strategy regarding dividend.

Attiya (2009) analyzed defining issues of payout strategy in developing Pakistan's economy with the sample based on 320 listed corporations at PSX for the period 2001-2006. Originally, they examined Fama and Babiak, 1968; Lintner (1962), Projected mockups, which were the delay of part change model by implying Board Regression and initiated that Pakistani business corporations trust more on present retributions and preceding payout to success their dividend payout. Furthermore, they investigated the causes of dividend payout and originate that corporations with constant optimistic net retributions distribute higher dividends. Additionally, the ownership patterns attentiveness and market liquescency are definitely associated with dividend payout proportion but Development chances took no impression for dividend payout and magnitude of the corporations established to be adversely and meaningfully connected with payout. The research works have delivered the standard to my work. It is absorbed on the part of business ascendancy connected dynamics in scheming payout strategy, while, they analyzed the influence of overall business typescripts on dividend payout. Though, flow of cash that is comparatively more significant than simple success was not deliberated by both educations. Free flows of cash are more valuable than accumulations in forecasting dividend variations subsequently cash flows are a more straight liquidity degree (Charitou & Vafeas, 1998).

Findings of research by (Thanatawee, 2013) suggest that based on empirical evidence on business corporations listed in the Stock Exchange of Thailand as of 2002 to 2008, it was revealed that larger business corporations with a higher free cash flow incline to distribute a higher dividend, thus the research supports the life cycle and free cash flow hypothesis Among the theories relating to leverage is the pecking-order theory which states there is a hierarchy in funding, where business corporations favor internal funding sources to outside ones and in the even outside funding sources are applied, business corporations favor the instrument of debts to equities.

Utami and Inanga (2011) discovered the influence of agency overheads of ordinary cash stream on payout strategy and financial leverage for 45 listed business corporations at the Malaysian Stock Exchange for the period for1994 to 2007. The results of analyzed data recommended that there is a considerably adverse association among ordinary cash flow and payout strategy. There is a meaningfully optimistic association among ordinary cash flow and financial leverage. Here is a pointedly constructive association among financial leverage and

dividend policy. There is an ominously adverse affiliation among growth ventures and dividend policy. There are somewhat confident relations among success and payout strategy; corporation size and dividend, standard hazard and payout.

Yao, Yang and Wang (2011) examined the effect of free cash flow as well as activity costs on presentation in business listed corporations at the Taiwan Stock Exchange. The grades presented that free cash flow ensuing from the effectiveness of confidential processes may clue to ideal demonstration of the corporation. The agency overheads consent a foremost adverse effect on business performance and stock yields. In tallying, the conclusions are enlightening of the fact that free cash flow is in imperious optimistic association with corporate performance criteria.

Zolfaghari and Setayesh (2011) explored the influence of free cash flow and asset hazards on debt to payout ratios in business corporations listed at TSE. The outcomes of arithmetical investigation on the suppositions offered that there is an expressively destructive association among free cash flow and debt ratios. Though, there is no imperious association among investment ventures and debt fraction. In accumulation, there is no imperative association among free cash flow and dividend payout ratio. Though, there is a expressively optimistic association among asset opportunities and dividend policy.

Utami and Inanga (2011) decided that the size and success and risk have the positive effect on the dividend policy. The free cash flow has negative influence on the dividend policy. In Iran, They specified that the free cash flow has the optimistic and imperative relationship on the dividend ratio.

Sharia obedience and free cash flow-dividend association another obligation for a corporation to be sharia-compliant is to have low cash, an imperative cause of dividend policy. Businesses with considerable free cash flow are subject to agency wars between manager and stockholders. Rendering to the free cash flow theory, managers are able to operate free cash flow under their switch. Mangers have the ability to use the residual funds for their own welfares slightly than to achieve the welfares of stockholders. By distributing more dividends, corporations decrease free cash under the switch of manager that can be applied for their own interests. Most research works have stayed directed to see the association among the agency

costs of free cash flow and dividend. Alli, Khan and Ramirez (1993), for example, text that corporations with high amount of extra cash are more likely to distribute dividends than corporations with cash shortage. Byrd (2010) suggested that corporations that produce cash flow outside that required to funding all optimistic net present value ventures are chiefly disposed to to agency glitches. The empirical evidence wires the Jensen disagreement that the liability and payout strategy decrease the free cash flow problem.

Kadioglu and Yilmaz (2017) reached comparable conclusions. Rendering to these researchers, dividend payout divert the incentive of managers to use free cash flow for their own interests as little cash is available to managers for optional purposes.

Choy, Gul and Yao (2011) show that corporations with free cash flow problem may reduce agency charges by enhancing payout to stockholders. They designate that since dropping dividend payout could result in a descent in stock value, by growing payouts, executives obligate themselves to distribute out the advanced level of payouts to stockholders, which alleviate the agency issues.

Abdullah, Ahmad, and Roslan (2012), Easterbrook (1984), Rozeff (1982) have stated that payouts assist such as a apparatus for decreasing agency charges by proposing a coherent for the dispersal of liquid resources to stockholders. On the other hand with the payout of dividends managers are forced to access stock market to nurture external investment to refill coffers rewarded out in payouts and it will reduce the prospect for executives to use corporation free cash flow for their privileges events.

Ullah, Fida and Khan (2012) exposed that institutional stockholder and the managerial stockholders have a bigger control over the corporation’s policies than other type of ownerships. Once the free cash flow obtainable in the corporation is more the administrator of the corporation can have resourceful behavior by utilizing the cash flows to inefficient projects. This can be skillful by the dividends. It clarifies that if there is a bad association among patterns of executive ownership and the dividend, rise in patterns of executive ownership will decrease the dividend and with a positive relationship with institutional ownership patterns will increase the dividend. They concluded that it is possible to reduce the managerial adaptable behavior. Eckbo and Verma (1994) stated that with institutional investors in the corporation leads to allocate the free cash flow as dividends.

This is reliable with the discovery of Issa (2015) who studied the causes of dividend policy of Malaysian corporations. A sample of 284 listed corporations in Kuala Lumpur stock exchange and multiple regression technique was applied. The result exposed a meaning relationship between free cash flow and dividend payout of the listed corporations. Dividend payout is one of significant area of financial executives. This is because both organization and investors takes dividend decision very imperative. Experiential literature on the association between dividend policy and free cash flow provides varied and indecisive results.

Sindhu (2014) suggested that dividend payout be contingent on cash flow which reproduces the corporation's ability to distribute dividend. They define free cash flow as the funds obtainable to executives before flexible stock investment choices. This comprises net income, devaluation, and the interest expense for firm. Required stock spending is deducted from these flows of cash to interpretation about investment in projects with positive-NPV.

Cheng, Cullina and Zhang (2014) deliberate free cash flow, development chances, and dividends of cross-listing of stocks in China. A multiple regression method was adopted and enclosed a sample of 1105 business corporations over 2003 – 2011. The work found that dividend payout of Chinese cross-listed business corporations reply more strongly to free cash flow than do the dividend payout of non-cross-listed businesses. Cross-listed business corporations are likely to distribute out more of their free cash flow than non-cross-listed business corporations, which can prevent administrators from exploiting the resources in ways that may not exploit stockholder wealth.

Mukthar (2014) studied 100 largest listed businesses in bursa Malaysia. A board data examination and multiple regression models revealed that a constructive association occurs between free cash flow and payout of business corporations in Malaysia. The general findings showed that free cash has strong suggestion to dividend payout. Numerous educations suggest that free cash flow is what really corporation payout ratio.

The work of Sáez and Gutiérrez (2015) if evidence that free cash flow clues to arise in dividend crop and the effect is stronger for low-growth corporations. The results shows optimistic and imperative association among payout strategy and free cash flow for low-growth corporations while free cash flow was creates to have a positive and imperative impact on dividend policy of high-growth corporations. These answers support the first hypothesis that

relations between free cash flow and dividend yield are positive and are more marked for low-growth corporations.

The study of Webber Jr and Marwan (2015) is to establish the relationship between dividend policy and the attributes of non-financial companies listed on Abu Dhabi Securities Exchange (ADX). The companies comprise manufacturing, services, food staples, energy, telecommunications and property and real estate. To achieve this objective, panel data for the period between 2010 and 2012 were collected from the listed companies' annual reports published on ADX website. The result of the analysis revealed that dividend policy is positively and significantly associated with corporate profitability, risk, free cash flows, size, majority shareholders and industry. Dividend policy, however, appeared to be negatively and significantly associated with corporate level of leverage. The result supports agency theory.

CHAPTER NO.3

RESEARCH METHODOLOGY

3.1 Introduction

This part of research work, methodology employed was described which is going to be discussed in devising the research work. This part incorporates about the design of research, design for sampling and population containing the sample size, the nature and scope of technique used for collection of data and drawing of sample, theoretical framework as well as data analysis that are all clearly described to support in execution the objectives of this research work, which observe the relationship among free cash flow, ownership structure and dividend payout for selected manufacturing corporations.

In this research work data of secondary nature is to be employed with respect to 210 manufacturing listed business corporations (70 from each country) at respective Stock Exchanges. Panel data was composed for this research work for the period of 2006-2015 covering the 10 years period. The outcomes would be originated through the assistance of this arithmetical method. The nature of descriptive measurements, analysis of correlation and fixed based effect model would be applied. This section also contains of portrayal of variables, devising of hypothesis, econometric model with arithmetical explanation regarding the variables that are assimilated in the research work.

3.2 Research Design

Cooper and Schindler (2000) design of research applied in research work is the draft about fulfillment of objects of study and answering the inquiries which have been recognized in this proposed research. There are numerous types with respect to research design with respect to its intended purpose. Causal research work design is operationalized in this research work. This research design is used because the research work is required to define the relationship among independent and dependent variables. It is also considered to discover out the relationship among

free cash flow, corporate ownership (ownership patterns) and dividend payout accordingly, therefore to explain relationship either it is occurred or not. This study considered all the listed corporations at PSX, National Stock Exchange of India (NSEI) and Dhaka Stock Exchange (DSE). This research work applied the correlation and regression analysis with respect to data collected for the period of 2006-2015.

3.3 Population and Sampling Design

3.3.1 Population

The population is the whole gathering of components or entire set of cluster associates and group almost that certain implications would be desired for create (Cooper & Schindler, 2000; Lewis, Thornhill, & Saunders, 2003). The targeted population concerning this research work is all of the corporations of non-financial manufacturing era that are listed on Pakistan Stock Exchange (PSX), National Stock Exchange of India (NSEI) and Dhaka Stock Exchange (DSE) which are more than 400 in Pakistan 1200 India and 200 in Bangla Desh out of total listed corporations. Though this research work excluded some corporations of this research work as of delisting and suspension from the NSEI, PSX and DSE and subsequently statistics with respect to these selected manufacturing corporations are inconsistent. So, in this research study, the target population comprised of all corporations from manufacturing sector that are appropriate within the restraints of the research work and have been listed at the NSEI, PSX and DSE. These corporations belong to various sectors specifically textiles, pharmaceutical, sugar, leather, cement, construction, and associated, petroleum and energy, plastic, food and cables.

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

Lewis et al., (2003) defined the frame or procedure for designing the sample as the entire list of whole cases or observations in a assumed population in which the possibility about extracting sample will be feasible. This research work employed listed manufacturing corporations on the PSX, NSEI and DSE by excluding particular corporations in this research work due to causes stated above. This research work only reflected the corporations for frame of sampling whose data with respect to dividend payout is quantified in form of dividend coverage ratio in analysis of financial statement with the help of periodicals and journals of their respective central banks and stock exchanges, as facts of ownership structure are accessible by their respective web based financials in the kind of audited annual reports covering the ten years

period. Therefore this exploration study perceived by relationship between free cash flow and corporate ownership on dividend payout, therefore the corporations which do not having the pertinent data were excluded only. The structure of sampling is developed with the assistance stock exchanges and central banks of three selected countries.

3.3.2.2 Sampling Technique

The technique of sampling is comprised of technique based practice that is applied to select the subjects in a prearranged sample. In my investigation research the systematic (Organized) technique of sampling is applied which is from probability sampling. The systematic sampling technique is a type of probability based sampling procedure in which members of sample are selected out of a huge population according to a random opening fact in a fixed periodic interval.

This procedure is established on the basis that every element of the selected population having an identified nonetheless not essentially equivalent opportunities that are designated in a sample (Hair, 2007). The technique of systematic based sampling is applied because of several facades regarding these selected manufacturing corporations i.e. they were categorized into sections of diverse manufacturing segments and disparities in capital structure and size, also definite firms did fulfill the standards obligatory established for this exploratory study for instance; certain firms taken having been registered on PSX, NSEI and DSE for the span of selected time, whereas the others have been deferred. The cause overdue the assortment about technique of sampling is the inevitability regarding these factors to suitable standards that might supports for the achievement of the purposes recognized in the research work.

3.3.2.3 Sample Size

The dimension of size of sample is presented by an association of components or elements that encompasses as part of selected population that is targeted prudently to describe the entire population (Cooper & Schindler, 2000). The study based research is limited upto targeted population of industrialized corporations belong to Pakistani non-financial sector though the corporations belonging to financial sector like banking, investment, insurance, leasing and modarabas corporations are not assimilated in this research study of due to particular procedure of their respective corporate and its particular nature of respective corporate operations. Majority of the corporations were designated out of Textile sector, Cement Business, Sugar Business and Energy and Fuel sectors.

In the research work data of secondary nature is applied of 210 (70 corporations from each country) listed manufacturing corporations in Pakistan Stock Exchange. Systematic sampling technique is applied because it depends on organizing the population on basis of accessibility of data collection of 10 years and throughout enlistment for the 10 years. The panel based data is composed for this research work from 2006 to 2015 for the time span of 10 years.

3.4 Panel Data

The research work applied the time based longitudinal measurement; obviously form of the panel based research work. Panel based work is a dominant form of longitudinal research study in which the academic observes precisely the identical people, group or corporations transversely the numerous time horizons (Neuman, 2007). This clarifies that, the type of panel based work accelerates to identify characteristics of specific business corporations over a designated time span. Also, this form of research work aids to execute dynamic modifications.

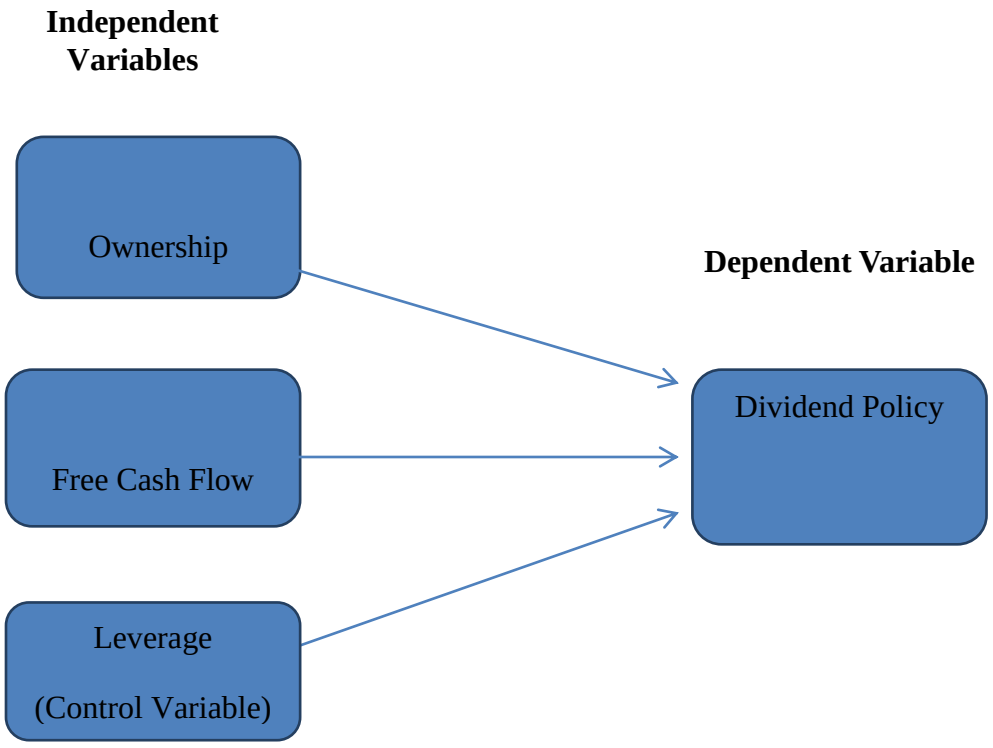
3.5 Sources of Data Collection

The research work establishes the relationship among free cash flows, structure of ownerships and dividend payout ratio. This research work entails the data with respect to diverse corporations that are listed at PSX, NSEI and DSE during 2006-2015. The corporations are carefully selected on the grounds of systematic sampling meanwhile most of the corporations do not have the pattern of ownership because they do not possess whole ten years tenure of enlisting on Stock Exchanges.

The secondary data is composed form analysis of financial statement with the help of the periodicals and journals by Central Bank of three countries with respect to non-financial division in Pakistan, India and Bangladesh. Statistics regarding the structures of ownerships is gathered with the assistance of annual audited financial statements regarding respective corporations that are accessible by the help of web financials.

3.6 Conceptual Framework

The dividend payout of firms is incorporated as dependent variable. The structure of business ownership and free cash flows are designed as independent variables whereas control variable is applied as the leverage.



3.7 Explanation of Variables

All the incorporated variables in development of the model are distinct as under and the justification of their enclosure in the model is presented here as well. All the variables which are assimilated in research work are defendable with the most latest and appropriate proxies.

3.7.1 Dividend Policy

It is applied as dependent variable. This can be explored by way of the capacity of firms to distribute profits to stockholders from the total profits produced by corporate operations. The payout strategy regarding dividend is one of the foremost interpreters about the results of this research study. It implies the firm's ability to disburse inconsistent or steady dividend payments over time span for research work. Usually, such as firms disburse consistent dividend to stockholders, it normalizes the provisions of executives in firms to accomplish commendably for

devising tolerant policy. They might consequently favor a policy either to improve the payout, stop or static payout. For such instance firms support steady payout policy regarding dividend, the enactment of corporation is further anticipated to increase in the short term interval. While the corporations that support unreliable payout strategy regarding dividend may improve performance nevertheless normally in long term period. Since such corporations may attempt to preserve funds for responsibility of such worthy investments projects.

On this indication, dividend payout policy may be considered as positively or negatively linked with the enactment of firms with respect to the time horizon. There are numerous proxies that are applied to oversee the payout policy regarding dividend of corporation; formerly for this obstinacy most of previous researchers applied a proxy for payout ratio about dividend to estimate the dividend policy of corporations as (Ahmad & Javid, 2010; Gugler, 2003; Parsian, Shams Koloukhi, & Abdolnejad, 2013; Reddy & Rath, 2005; Shabbir et al., 2014) applied in their own respective study works. In this research work principle applied to define the dividend payout as total dividend distributed allocated by the retributions per stock.

Dividend payout Ratio = (Dividend per Share / Earnings per Share) X 100

3.7.2 Corporate Ownership Structure

3.7.2.1 Institutional Ownership Structure

This is applied as an Independent variable. The Institutional ownership denote corporations or trade organizations (like a mutual investment funds, insurance corporations, leasing corporations, financial banking institutions and other non-financial business corporations) which hold shares in other manufacturing (non-financial) corporations that are operated firms generally. In short confrontations, the portion of shares that is detained by other financial and non-financial firms is recognized as institutional ownership. The statistics with respect to institutional ownership is composed with the help of respective web based financials including analysis of financial statements or audited reports of the designated non-financial manufacturing corporations. Such as, the proportion of ownership as configurations of ownerships apprehended through the institutions specified overhead.

Ownership from financial institutional denotes the figure of ownership in the form of proportion apprehended by all types of banks, investment firms, insurance firms, pension based funds and advanced financial organizations at national and international level, out of the entire ownership of every corporation. Non-financial institutions ownership mentions for instance the

quantity of ownership in kind of proportion possessed by related business corporations, subordinate business corporations, controlling business corporations and connected associates out of whole ownership of every corporation. Non-Financial and financial corporate ownership equally is performing their own respective vital part for evaluating and monitoring the executives of corporation on behalf of proficiency in economic acquaintance along with enormous stashes. Therefore, the quantity of each ownership is applied as alternative estimation for organized ownership in my research work. Lee, Suk and Han (1999) opposed that there subsists a strong relationship among dividend payout strategy and organizational ownership whereas in view of their tax centered hypothesis in work.

3.7.2.2 Managerial Ownership Structure

It is well implied as an independent variable. The managerial or executive ownership has been enlightened as per the rights of ownership held with fellows of Board of Directors and their close members within family ((Morck, Shleifer, & Vishny, 1988), by means of the fraction of shareholdings that is apprehended by foremost insiders managers or executives (Berger, Ofek , Yermack 1997; Friend & Lang, 1988) or the percentage of the investment being detained with president or executives (Ellili & Farouk, 2011). In their conducted study, managerial or executive ownership is described as the portion of common stocks detained with all executives (Brailsford, Oliver, & Pua, 2002; Ruan, Tian, & Ma, 2011).

In our concerned research work, the managerial ownership is designed by the quantity of ownership portion detained by managers, administrative, executives, directors and member of their respective families divided by the aggregate stock equity of the corporation. Miscellaneous research works have exposed different results with respect to manager's role in corporation's ownership. Numerous researchers and scholars have supposed that management ownership may appropriately supporter the interest of executives and stockholders as this would reduce the encounters between their own anxieties to expand the corporation's enactment. Rendering to Hansen and Crutchley (1989), executive ownership and corporation's performance is relevant since it may help to reduce the encounter of benefits between the executives and stockholders. Executives try to utilize their capabilities for efficient judgment that may upshots in Proficient Corporation's enactment.

3.7.3 Free Cash Flows

The free cash flow signifies the cash acquired by a corporation when making payout against the expenditures for the development and preservation of assets. The free cash flow may have authoritative submissions for stockholders in measuring the financial wellbeing of corporation. It must be distinguished that all persons are obviously looking forward to upsurge their personal benefits. Encounters of interest among executives and owners (stockholders) may exaggerate the risk of untrustworthy evidence. One of dynamics performing a role during a clash among stockholders and proprietor is in what way to recompense cash to stockholders as dividends. The payout of cash dividends reflected less habitually indications to the corporation's liquidity.

Conferring to Jensen (1986), if executives are looking forward to develop their business firms in any way feasible, they capitalize the free cash flow in projects having positive NPV, followed by paybacks of executives to eradicate losses from stock proceeds. In such type of developments, the cash reserves are dispersed among stockholders for the advantage of stockholders and improve the firm's condition. The dividend is the main output of cash streams in numerous business corporations. The investors having diverse incentives in buying shares and executive can accept suitable strategies to comprehend the foremost corporate goal, i.e. maximization of the business profits and eventually maximization of stockholder's wealth. This is explained as cash flow per unit of asset.

Crutchley and Hansen (1989) explained FCF such as the funds accessible to executives before unrestricted equity investment decisions. FCF is designed as a deduction of corporation's capital type expenditures from its cash flow generated from operations.

Cash movements are one the supreme crucial element of cash holding of financial corporate. Financial research studies elucidated free cash flow such as operating cash flows after depreciation and tax as applied by the (Mancinelli & Ozkan, 2006). The trade-off philosophy specified that the theory of free cash flow that described those flows of cash from operation applied as convenient cause of liquidity which may be observed as a substitution to liquid cash. Consequently, Kim et al. (1998) testified his findings by integrating the free operating cash flow and cash holdings in his research studies.

Fazzari et al. (1988) discussed that if stock market were deficient and investment oriented opportunities were appropriately controlled; there would be a constructive relationship between

engendered free cash flow and dividend. Chen et al. (2007) proposed that a firm`s cash flow has a substantial impact on dividend, and satisfactory cash flow are the foundation of the dividend payout. By referring to their respective methodologies, cash flow is incorporated as to inspect the dividend and cash flow relationship. In this work free cash flow has been incorporated as the summation of net profit and depreciation.

This is dignified as free cash flow in light of suggestible cash by the stockholders- i.e. afterward all the short time reinvestments and other obligations such as interest and tax (to outsiders) are rewarded off. The remaining free cash flow is observed to be at the preference of the executives and it is thus what could actually cause agency cost (Yero and Shehu, 2013). In this work free cash flow is calculated by following equation.

FCF= Operating Profit - Tax + Depreciation

3.7.4 Leverage

The financial realistic review of literature, demonstrated that leverage is explained as an synthetic of firm's debt distributing capacities. For this tenacity, total obligations of business divided by aggregate assets in business are applied to estimate the firm's debt dispensing aptitude. Exclusive of trade off philosophy all other philosophies pecking order model and free cash flow model testified the adverse association between leverage and cash holding. Ozkan and Ozkan (2004) described their investigational research works professed by the deputations for leverage and liquid holding of free cash. Though, it is combined observation that corporations that might have greater leverage, select to retain surplus liquid cash. For this reason in my research study leverage is estimated by total obligations of corporation divided by its total asset.

Leverage is explained as the fraction of debt to equity capital with in corporation. The section of each affects the cost of equity and the value of the corporation (Pandey, 2007). The quantity of debt in a corporation has dictates the corporate financial performance. Conferring to Jensen (1986), debt financing diminishes the moral pitfall conducted by decreasing cash flow at the executives' discarding. This upsurges their pressure to execute henceforth improving corporation's financial performance. In this work proxy for the leverage is the ratio of the book value of total debt to the book value of total assets for leverage (LEV).

$$\textbf{Leverage} = \frac{\textbf{Book value of Debt}}{\textbf{Book Value of Assets}}$$

3.7.5 Operationalization of the Variables

In this research, the independent variables were comprised of Free cash flow (X1), Ownership Structure (X2), and Leverage (X3). For more details, the operationalization of the research variables is described below.

Table 3.1 Operationalization of the Variables

Variable	Defining Variable	Formula	Scale
Institutional Ownership Structure	% of Ownership held by other corporations	IOWN Equity / Total Equity X 100	Ratio
Managerial Ownership Structure	% of Ownership held by executives	MOWN Equity / Total Equity X100	Ratio
Free cash flow	A corporation's cash that can be distributed to creditors or stockholders which is not applied as working capital or for investments in fixed assets.	Operating Profit -Tax + Depreciation	Ratio
Dividend Payout	The Dividend Payout Ratio (DPR) of the subsequent year. It indicates the percentage of retributions to be dispersed in the form of dividends to stockholders.	(Dividend per Stock / Earnings per Stock) X 100	Ratio
Leverage	A corporation's ability to meet all its obligations indicated by the use of some of its own capital to distribute debts.	BV of Debt / BV of Assets	Ratio

3.8 Development of Hypotheses

3.8.1 Free cash flow and Dividend Policy

The initial research studies specified the constructive and significant association among the free cash flow and dividend payout strategy of corporation in the developing and developed economies of the world. Mukthar (2014) provided evidence on the positive association among free cash flow and dividends. Sáez and Gutiérrez (2015) appealed that free cash flow were the excellent and most reliable indication of business prospects. High free cash flow stretch indication that the business is assertive of its vigorous dividend in future. The large helpful literature is specified in review of literature in this respect. All the preceding scholars had prepared this sympathetic and helpful literature as a foundation for evolving the proposition in their particular research works backed by theory of free cash flows. By accepting the identical apparatus, the hypothesis of the research work are established with respect to free cash flow and dividend payout ratio for selected three countries.

Hypothesis 1:

Ho: There is no significant relationship between free cash flow and dividend payout

H_1: There is significant relationship between free cash flow and dividend payout

3.8.2 Corporate Ownership and Dividend Policy

The link among ownership patterns and corporation's dividend payout policy was postulated by succeeding agency theory presented Meckling and Jensen (1976) and Jensen (1986). Within the standpoint of my research, two surfaces of configurations of ownership were applied, comprising Institutional ownership and managerial ownership. The choice in this regard was developed on each country's framework as a transitional and emerging economy with distinct landscapes with respect to ownership and the confines of data. Unambiguously, the first relevant argument is that institutional ownership is most popular among listed corporations on stock exchanges. This is based on the Govt. strategies and excessive accessibility of surpluses retained by corporations and accepting risk aversive attitude for the reason that of political uncertainty in countries. Secondly, executive ownership is also performing active role in decision making mechanism for defending their privileges. Managerial ownership is also foremost pillar regarding signaling theory and agency theory and also has momentous influence on the working efficiency in corporations.

Hypothesis 2:

H_o: There is no significant relationship between ownership structure and dividend payout by taking the proxy of managerial ownership patterns.

H_1: There is significant relationship between ownership structure and dividend payout by taking the proxy of managerial ownership patterns.

Ho: There is no significant relationship between ownership structure and dividend payout by taking the proxy of institutional ownership patterns.

H_1: There is significant relationship between ownership structure and dividend payout by taking the proxy of institutional ownership patterns.

3.9 Research Model

The following model is applied to examine the relationship between corporate ownership (ownership oriented patterns), free cash flows and dividend payout of corporations which are selected from three countries. The econometric model is accompanying with the prevailing research literature of Huson and Joher (2008), Brailsford, Adnan et al. (2015), Pua and Oliver 2002; Ruan, Ma and Tian (2011).This established model is to be applied to investigate the relationship. The practical form of models is presented below:

Dividend Payout = f (Ownership patterns Structure, Free cash flow, leverage| Overall)

Dividend Payout = f (Ownership patterns Structure, Free cash flow, leverage| PSX)

Dividend Payout = f (Ownership patterns Structure, Free cash flow, leverage| DSE)

Dividend Payout = f (Ownership patterns Structure, Free cash flow, leverage| NSEI)

Operational Model: This work conducted to examine the relationship between dividend policy, FCF and Ownership Structure

Overall Model:

$$DP_{it} = \alpha_i + \beta_1 MOWN_{it} + \beta_2 IOWN_{it} + \beta_3 FCF_{it} + \beta_4 Lev_{it} + \varepsilon_{it}$$

PSX Model:

$$DP_{itp} = \alpha_{ip} + \beta_1 MOWN_{itp} + \beta_2 IOWN_{itp} + \beta_3 FCF_{itp} + \beta_4 Lev_{itp} + \varepsilon_{itp}$$

DSE Model:

$$DP_{itd} = \alpha_{id} + \beta_1 MOWN_{itd} + \beta_2 IOWN_{itd} + \beta_3 FCF_{itd} + \beta_4 Lev_{itd} + \varepsilon_{itd}$$

NSEI Model:

$$DP_{itn} = \alpha_{in} + \beta_1 MOWN_{itn} + \beta_2 IOWN_{itn} + \beta_3 FCF_{itn} + \beta_4 Lev_{itn} + \varepsilon_{itn}$$

Where;

DP_{it} = Dividend payout of current period. It is measured as dividend paid per stock divided by net earnings per stock.

α_i = The constant

$MOWN_{it}$ =Represent the percentage wise ownership configurations detained by executives in the equity of firm. It is assimilated in the research study since it expresses an energetic part in reducing the agency issue amongst the agents and principal. The internal administrative ownership hedges from the liability in the capital structure of business in imperative to reduce the pressure of insolvency. Managerial ownership, portion of stocks is held by directors and executives. Its effect is measured through β_1

$IOWN_{it}$ = Individual Ownership patterns, Proportion of stocks held by Individuals. Its effect is measured through β_2

FCF_{it} = flow of cash in current period. It is estimated as operating profit after tax plus depreciation. Its effect is measured through β_3

Lev_{it} = Total debt/ Total assets. Its effect is measured through β_4

ε_{it} = Unexplained portion of the work

3.10 Data Analysis

This research work applied both descriptive and inferential statistics for conducting the analysis from collected data. The inferential measurements are applied in order to stretch the assumptions by the composed facts that had been observed similar to prevailing research works executed. Furthermore, expressive facts are soiled hence as to afford assistance in clarifying that what is going on composed data. The expressive statistics are realistic for the meantime. They turned the treatment of evidence arithmetically for the determinations of forthcoming several analyses. This is relevant for clarification of the statistics for the contentment of the intentions established for the research work.

The expressive figures are comprised of the arithmetic mean, the median and the standard deviation. The exploration of correlation is similarly assessed for determining the degree and direction of the relationship among the variables. Descriptive statistics, the correlation matrix and the fixed based effect model is applied for examination of collected facts. Unit root test is also applied to check the stationary level of composed data.

3.10.1 Fixed Effect Model:

The fixed effect model is a technique of estimating the constraints with the help of specified collection of panel based statistics. The fixed based effect determinant is established by Ordinary Pooled Least Square on the deviancies regarding the mean about unit of each time period. This technique is relevant once one accepts that the ordinary worth of dependent variable would be fluctuated from each cross section unit or time period.

Ho: Constant is alike (Pooled OLS)

H1: Constant is not alike (Fixed or random)

Primarily it is supposed that constant associated with variables are different crosswise the data fragments at that point fixed effect model is applied. The outcomes of F statistics are specified as follows;

Test statistic: F (210, 2100) = 4.68563

With p-value = P (F (210, 2100) > 4.68563) = 4.25856e-089

It is perceived that Ho is rejected by the results of fixed based effect model and functional in work, meanwhile the F indicators with respect to fixed based effect model expresses that the slope is dissimilar through each cross section that recommends the Pooled OLS was not the appropriate method to follow.

Then substitute standard is applied in imperative to improve the comprehensive confirmation with respect to the rejection about pooled OLS that is integration of Least Square dummy variable within established model. The outcome displays that 23 dummies out of 210 dummies were considerable and also label that the null hypothesis should to be irrelevant which successively reject the solicitation of Pooled OLS. The outcomes of the dummy variables of least square approve that as fixed based or random based effect model would be practical.

Latterly, random based effect model or fixed based effect model has excellent suitability to interpret the statistics in conflicting about the pooled OLS. For this obstinacy, the Housman test is applied to differentiate either better results are produced by the random effect model or fixed effect.

Ho= Random effect model is consistent

H1= Random effects model is not consistent

Housman Test statistics:

H = 38.8159 with p-value = Prob (chi-square(4) > 38.8159) = 7.60393e-008

(A small p-value counts against the null hypothesis that the random effects model is consistent, in favor of the fixed effects model.)

P-Value of Housman Test Statistics is significant; this shows that the null hypothesis is rejected in the favor of fixed effect model.

CHAPTER NO.4

RESULTS AND DISCUSSION

4.1 Introduction

This part of research study is allied with the scrutiny and analysis of the composed data. This section discusses the techniques to be applied, statistical model and generated effects with the support of statistics composed as well as the assistance of sampled corporations. The data has been composed from 2006 to 2015 in this regard. This research study has employed the different techniques like descriptive statistics, correlation matrix and unit root test. The research work has applied Gretl software for the processing and examining the composed data. To analyze the collected data and to contribute in finding out the latent slips in research data, descriptive statistics are utilized to summarize and explain the firms' variables. This extant is used to sightsee the data and also to recognize any potential errors in data.

Consequently, analysis about correlation regarding variables is executed to determine the associations between free cash flows, structure of ownership (patterns of ownership) and dividend payout ratio and firm's leverage. In the subsequent step, analysis of multiple regressions is conducted on panel based statistics to observe the direction and degree of relations between variables after adjusting the individualities of corporation like firm's leverage. According to wide-scope, the pooled OLS, RE and FE estimation approaches were the most shared approximation procedures in instance of panel based statistics. The Panel based technique of regression and model is applied for the scrutiny of finale outcomes that characterizes the premise in this research work. The panel facts centered approach (Fixed Effect Model) is the outstanding method for the assessment of both cross sectional and time series data at the same time.

Table 4.1 Overall Descriptive Statistics

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	2100	0.00000	56.6667	18.9717	0.705309
FCF	2100	-63.3900	41.030	8.17780	23.8738
MOWN	2100	0.00000	97.09	32.7909	26.6764
IOWN	2100	0.0000	99.78	38.7398	39.144
LEV	2100	13.66356	79.5980	43.3419	1.78910

4.2 Overall Model

4.2.1 Descriptive Statistics

Descriptive statistics present the transitory interpretations of constants that summarize a composed of data set which may be also a portrayal of the entire population. These statistics of description are classified in two approximations as central tendency and variability. The central tendency based estimations comprised of the arithmetic mean while variability based approximations comprised of the standard deviation, consisting of lowermost value and uppermost value pertaining to variables. Consequently, description of statistics are incorporated in research study to observe the overall tendency and stationarity of collected data accompanying dividend policy of corporation as dependent variable while other descriptive variables as independent.

The table-4.1, such as stated above, is related the results of normal distribution regarding the data set of 2100 observations, represents that the leverage states highest value about arithmetic mean and second lowermost value about standard deviation of variable as associated to others variables. DPO having value of mean as 18.9717, with a lowermost value as 0.00000 and uppermost value as 56.6667 and the value for standard deviation of DPO is 0.705309. The MOWN having value of value of mean as 32.7909, with a lowermost value as 0.000000 and

uppermost value as 97.09 and value for standard or average deviation of MOWN is about 26.6764.

The IOWN having value of arithmetic mean as 38.7398, through a lowermost value about 0.0000 and highest value as 99.78 whereas the value for standard deviation of IOWN is about 39.144. The presented above descriptive measurements table with respect to average distribution regarding data depicts that the unprocessed data having lacks of normal distribution. Meanwhile all of the variables assimilated in research work that are lamented from normality are positively skewed.

Table 4.2 Overall Correlation Matrix

Variables	DPO	FCF	MOWN	IOWN	Lev
DPO	1				
FCF	0.0664	1			
MOWN	0.0695	-0.0235	1		
IOWN	0.0258	-0.0128	-0.0911	1	
Lev	-0.014	-0.1988	0.0499	-0.0014	1

4.2.2 Overall Correlation Matrix

The relationship between independent and dependent variables is examined by stating the matrix of correlation. The stated above matrix of correlation validates the relationship between variables. This expresses the standards ranging from -1 to +1. The adverse sign states that the relationship between the variables is destructive that signify both the extents proliferate toward contrasting trimmings. If the one variable can face rise as a result the other variable may decrease and vice versa. By way of the expression of the positive symbol, it states that a positive

relationship exists between both variables. If one variable moves upward there will also be upward movement in other variable and vice versa.

Table-4.2 presents that matrix of correlation between the variables that have been considered in the research work, as the leverage presented a negative correlation with DPO. However, free cash flow ratio is also positively interrelated with DPO. Managerial ownership is also favorably related with dividend payout. Institutional ownership has positive correlation with dividend payout. Though, different researchers deliver diverse approaches by considering highest level with respect to correlation. Discussing to (Hair, Anderson, Tatham, & William, 1998; Tabachnick & Fidell, 1996) the level with respect to the presence of highest correlation equals and above than 0.90 typically. The research work by Anderson et al. (1999) quantified the coefficient for correlation that was measured between 0.70 and 0.80. The study of Brayman et al. (2001) clarified the extent of correlation between two forecaster variables is about 0.80 or more it is supposed that there exists multicollinearity between those predictor variables.

For performing the regression model based on panel data, a complete matrix is related with associations between all the forecasters (Free cash flow, corporate ownership with dependent variable (dividend payout). There is also specified all the correspondences between the dependent variable and their corresponding relations with the two independent variables. Analysis based on matrix of correlation sightsees that a momentous level regarding the correlation was not recognized between any of the two independent variables.

Table 4.3 Panel Unit Root Test: Summary

Variable	Statistics Values		Sig.	Conclusion
FCF	Chu, Lin and Levin t*	-11.3518	0.0000	1(0) i.e. Stationary on level
	Chi-square of PP – Fisher	-3.091	0.0000	1(0) i.e. Stationary on level
MOWN	Chu, Lin and Levin t*	-4.41982	0.0000	1(0) i.e. Stationary on level
	Chi-square of PP – Fisher	21.541	0.0004	1(0) i.e. Stationary on level
IOWN	Chu, Lin and Levin t*	-4.80680	0.0000	1(0) i.e. Stationary on level
	Chi-square of PP – Fisher	49.440	0.0025	1(0) i.e. Stationary on level
LEV	Chu, Lin and Levin t*	-8.83822	0.0000	1(0) i.e. Stationary on level
	Chi-square of PP - Fisher	302.833	0.0000	1(0) i.e. Stationary on level

4.2.3 Panel Unit Root Test

Table-4.3 is stating results of unit root test. Current research work has applied unit root test afore regression analysis. This test is conducted to assess whether collected data is stationary or not. The stationary of data represents very imperative, since, if tendency is present in data, counterfeit results are produced that is very destructive. Hereafter, to evade counterfeit results; research work have used unit root tests. FCF is having P value 0; it represents the collected data having stationery on level. Probability value is considered from Lin, Levin and Chu and Chi-square of PP - Fisher approaches. The P value as of both approaches displays data is in stationery on level. The P value for MOWN is 0, it indicates stationarity of data at level. The Probability value is considered from Lin, Levin and Chu and Chi-square of PP - Fisher approaches. The P value as of both approaches displays stationarity of data on level. The P value for IOWN is about 0; it denotes that data expresses stationery on the level. The Probability value is designed from Levin, Lin and Chu and Chi-square of PP - Fisher approaches. The P value as of both the approaches displays that data having stationery on the level. The probability value for Corporation's Size is about 0; it denotes data is having stationery on level. The P value is

premeditated from Lin, Levin and Chu and Chi-square of PP - Fisher approaches. The Probability value from both approaches displays stationery of data on level.

Table 4.4 Overall Fixed Effects Model

Variable	Co-efficient	Std. Error	t-value	P-value
Constant	3.36039	18.3912	0.1827	0.8550
FCF	9.51608	2.64356	3.5997	0.00033
MOWN	8.5445	2.63824	3.2387	0.00122
IOWN	12.4781	2.643	4.7212	<0.00001
LEV	-5.54304	2.65015	-2.0916	0.03659
R-squared	**0.5877**		**F(13, 2054)**	**1.094153**
Adjusted R-Squared	**0.4812**		**P-value(F)**	**0.00000**

** Significant at 0.05 levels

4.2.4 Overall Fixed Effect Model

Table-4.4 indicates the outcomes associated with estimates of fixed effect regression based on panel data. Principally the model encompasses about four of the variables. The corporate ownership structure is seemed to be significant out of incorporated variables by different magnitudes with respect to twofold proxy approximations at the conservative level of all corporations irrespective of leverage opportunities. Other variables comprising free cash flow are seemed also to be significant.

The results demonstrates that Free cash flow and dividend payout has positive and significant relationship as the p-value estimated (0.00003) is lower than the standard of Pearson as 0.05 as well as the t-value about (3.5997) is also greater than standard value of 1.96. This represents that DPO is increased by (9.51608) by one unit upsurge in FCF value. These findings are consistent with existing research works (Talat Afza, 2010; Kevin and Zhou, 2012; Sindu and Hashmi, 2016; Kangarlouei and Banafsheh, 2007; Rezvan 2014; Wu Lingling, 2005). Henceforth the alternate hypothesis is recognized asserting that there is a significant impact of free cash flow on corporation’s dividend policy and null hypothesis is rejected.

There is found a positive but significant relationship is present between managerial ownership with p-value is (0.00122) and having t-value about (3.2387). Conferring to table, DPO is increased by the (8.5445) by one part upsurge in managerial ownership that rejecting the null supposition and defends the alternate hypothesis expressing that there is a significant impact of corporate ownership on firm's dividend policy. These findings are consistent with existing research work (Talat et al, 2010; Sindu and Hashmi, 2016; Baqir Hasnain, 2011; Wu Lingling, 2005).

There is positive and significant relationship is present among institutional ownership and DPO as p-value is (0.0000) and as a t-value of (4.7212). Rendering to table, DPO is improved by the (12.4781) by one part upsurge in institutional ownership that elucidates the alternating hypothesis that there is positive and significant impact of corporate ownership on corporation's dividend payout and discards the null premise. These findings are consistent with existing research work (Jaun and Martin, 2015; Hamid and Fida, 2012; Warrad and Imad, 2011; Ali, Wasim Ullah, & Hasnain, 2011; Wu Lingling,2005).

The model expresses best adequate with the value of F statistics as 1.094153, substantial on the level of 5% with R-squared value as (58.77%) and Adjusted R2 about 48.12%. The symbols of factors are same as expected. It develops perfect that the designated independent variables are contributing by (58.77%) part for the dependent variable of corporation's performance.

Table 4.5 PSX-Descriptive Statistics

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	700	0.00000	39.78	18.7398	29.144
FCF	700	-53.3900	35.790	7.86404	30.5894
MOWN	700	0.00000	96.6667	42.0549	35.5715
IOWN	700	0.00000	89.09	32.7909	23.6764
LEV	700	3.66356	69.5980	14.3419	8.78910

4.3 PSX Model:

4.3.1 Descriptive Statistics

Descriptive statistics present the transitory interpretations of constants that summarize a composed data set which may be also a portrayal of the entire population. These statistics of description are classified in two approximations as central tendency and variability. The central tendency based estimations comprised of the arithmetic mean while variability based approximations comprised of the standard deviation, consisting of lowermost value and uppermost value pertaining to variables. Consequently, description of statistics are incorporated in research study to observe the overall tendency and stationarity of collected data accompanying dividend policy of corporation as dependent variable while other descriptive variables as independent.

The table-4.5, as stated above, is related the results of normal distribution regarding the facts of 700 observations, represents that the managerial ownership expresses highest value of mean and highest value of average deviation of variable as associated to others variables. The DPO having value of mean as 18.7398, with a lowermost value as 0.00000 and uppermost value as 39.78 and the value for standard deviation of DPO is 29.144. The MOWN having value of value of mean as 42.0549, with a lowermost value as 0.00000 and uppermost value as 96.6667 as well as value for standard or average deviation of MOWN is 35.5715.

The IOWN having value of arithmetic mean as 32.7909, with a lowermost value as 0.0000 and highest value as 89.09and the value for standard deviation of IOWN is about 23.6764. The presented above descriptive measurements table with respect to average distribution regarding data depicts that the unprocessed data having lacks of normal or average distribution. For the moment all of the variables assimilated in research work that are lamented as of normality were positively skewed.

Table 4.6 PSX Correlation Matrix

Variables	DPO	FCF	MOWN	IOWN	Lev
DPO	1				
FCF	0.0664	1			
MOWN	-0.0695	-0.0235	1		
IOWN	0.0258	-0.0128	-0.0911	1	
Lev	0.014	-0.1988	0.0499	-0.0014	1

4.3.2 PSX Correlation Matrix

The relationship between independent and dependent variables is examined by stating the matrix of correlation. The stated above matrix of correlation validates the relationship between variables. This expresses the standards ranging from -1 to +1. The adverse sign states that the relationship between the variables is destructive that signify both the extents proliferate toward contrasting trimmings. If the one variable can face rise as a result the other variable may decrease and vice versa. By way of the expression of the positive symbol, it states that a positive relationship exists between both variables. If one variable moves upward there will also be upward movement in other variable and vice versa.

Table-4.6 presents that matrix of correlation between the variables that have been considered in the research work, as the managerial ownership presented a negative correlation with DPO. However, free cash flow is also positively interrelated with DPO. Institutional ownership is also favorably related with dividend payout. The leverage has positive correlation with dividend payout. Though, different researchers deliver diverse approaches by considering

highest level with respect to correlation. Discussing to Hair et al. (1998) and Tabachnick (1996) the level with respect to the presence of highest correlation equals and above than 0.90 typically. The research work by Anderson et al. (1999) quantified the coefficient for correlation that was measured between 0.70 and 0.80. The study of Brayman et al. (2001) clarified the extent of correlation between two forecaster variables is about 0.80 or more it is supposed that there exists multicollinearity between those predictor variables.

For performing the regression model based on panel data, a complete matrix is related with associations between all the forecasters (Free cash flow, corporate ownership with dependent variable (dividend payout). There is also specified all the correspondences between the dependent variable and their corresponding relations with the two independent variables. Analysis based on matrix of correlation sightsees that a momentous level regarding the correlation was not recognized between any of the two independent variables.

Table 4.7 PSX Fixed Effects Model

Variable	Co-efficient	Std. Error	t-value	P-value
Constant	3.48525	1.08330	3.217	0.0014
FCF	9.59860	4.75178	2.020	0.0438
MOWN	-0.00338719	0.00474	-0.7141	0.47523
IOWN	0.00847862	0.00242	3.5025	0.00047
LEV	0.708001	1.27402	0.5557	0.5786
R-squared	**0.388516**		**F(13, 673)**	**5.866721**
Adjusted R-Squared	**0.312195**		**P-value(F)**	**0.0000**

** Significant at 0.05 level

4.3.3 PSX Fixed Effect Model

Table-4.7 indicates the outcomes associated with estimates of fixed effect regression based on panel data. Principally the model encompasses about four of the variables. Only the institutional ownership and free cash flow are seemed to be significant out of incorporated

variables with different magnitudes with respect to twofold proxy approximations at the conservative level of all corporations irrespective of leverage opportunities. Other variables comprising managerial ownership and leverage are seemed also to be insignificant.

The results demonstrates that Free cash flow and dividend payout has positive and significant relationship as the p-value (0.0438) is lower than the standard of Pearson as 0.05 as well as t-value of (2.020) is also greater than standard value of 1.96. This represents that DPO is increased by the (9.59860) by one part upsurge in FCF value. These findings are consistent with existing research works (Talat Afza, 2010; Kevin and Zhou, 2012; Sindu and Hashmi, 2016; Kangarlouei and Banafsheh, 2007; Rezvan 2014; Wu Lingling, 2005).Hereafter the alternate supposition is recognized asserting that there is a significant impact of free cash flow on corporation's payout policy and null premise is precluded.

There is found an adverse but insignificant relationship is present between managerial ownership with p-value is (0.47523) and having t-value (-0.7141). Conferring to table, DPO is declined by the (-0.00338719) by one part upsurge in managerial ownership that rejecting the alternate supposition and defends the null supposition expressing that there is a no significant impact of corporate ownership on corporation's dividend policy. These findings are consistent with existing research work (Hamid and Fida, 2012)

There is constructive and noteworthy association is existed amongst institutional ownership and DPO as p-value is (0.00047) and with t-value (3.5025). Rendering to table, DPO is improved by the (0.00847862) by one part increase in institutional ownership that explains the alternate supposition that there is positive and significant influence of corporate ownership on corporation's payout and discards the null premise. These findings are consistent with existing research work (Jaun and Martin, 2015; Hamid and Fida, 2012; Warrad and Imad, 2011; Baqir Hasnain, 2011, Wu Lingling,2005).

The model expresses best acceptable with the value of F-statistics as 5.866721, substantial at level of 5% with R-squared as (38.8516%) and Adjusted R-squared about 31.2195%. The signs of factors are same as expected. It develops perfect that the designated independent variables are subsidizing (38.8516%) part for the dependent variable of corporation's performance.

Table 4.8 DSE-Descriptive Statistics

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	700	0.0000	61.78	38.7398	37.144
MOWN	700	0.000000	98.666	13.5945	0.608602
IOWN	700	0.00000	97.09	32.7909	17.09
FCF	700	-58.3900	81.030	8.33488	24.0683
LEV	700	11.2200	79.5980	34.3362	1.81137

4.4 DSE Model

4.4.1 Descriptive Statistics

Descriptive indicators present the transitory elucidations of constants that summarize a composed set of data which may be also a portrayal of the entire population. These statistics of description are classified in two approximations as central tendency and variability. The central tendency based estimations comprised of the arithmetic mean while variability based approximations comprised of the standard or average deviation, consisting of lowermost value and uppermost value pertaining to variables. Consequently, description of statistics are incorporated in investigation study to observe the overall tendency and stationarity of collected data accompanying performance of corporation as dependent variable while other descriptive variables as independent.

The table-4.8, as stated above, is related the results of normal or average distribution regarding the facts of 700 observations, represents that the DPO expresses highest arithmetic value mean and highest the value of standard deviation of variable as associated to others variables. The DPO having value of mean as 38.7398, with a lowermost value as 0.00000 and uppermost value as 61.78 and the value for standard deviation of DPO is 37.144. The MOWN having value of value of mean as 13.5945with a lowermost value as 0.000000 and uppermost value as 98.666 and value for standard or average deviation of MOWN is about 0.608602.

The IOWN having value of arithmetic mean as 32.7909, with a lowermost value as 0.0000 and highest value of 97.09 and the value for standard or average deviation of IOWN is

17.09. The presented above descriptive measurements table with respect to average distribution regarding data depicts that the unprocessed data having lacks of normal or average distribution. For the moment all of the variables assimilated in research work that are lamented since normality are positively skewed.

Table 4.9 DSE Correlation Matrix

Variables	DPO	FCF	IOWN	MOWN	Lev
DPO	1				
FCF	0.0135	1			
IOWN	-0.0349	-0.0394	1		
MOWN	0.0004	0.0045	-0.0697	1	
Lev	0.0518	-0.0806	0.1153	0.0062	1

4.4.2 DSE Correlation Matrix

The relationship between independent and dependent variables is examined by stating the matrix of correlation. The stated above matrix of correlation validates the relationship between variables. This expresses the standards ranging from -1 to +1. The adverse sign states that the relationship between the variables is destructive that signify both the extents proliferate toward contrasting trimmings. If the one variable can face rise as a result the other variable may decrease and vice versa. By way of the expression of the positive symbol, it states that a positive relationship exists between both variables. If one variable moves upward there will also be upward movement in other variable and vice versa.

Table 4.9 presents that matrix of correlation between the variables that have been considered in the research work, as the institutional ownership presented a negative correlation with DPO. However, free cash flow ratio is also positively interrelated with DPO. Managerial ownership is also favorably related with dividend payout. Institutional ownership has positive correlation with dividend payout. Though, different researchers deliver diverse approaches by considering highest level with respect to correlation. Discussing to Hair et al. (1998) and Tabachnick (1996) the level with respect to the presence of highest correlation equals and above

than 0.90 typically. The research work by Anderson et al. (1999) quantified the coefficient for correlation that was measured between 0.70 and 0.80. The study of Brayman et al. (2001) clarified the extent of correlation between two forecaster variables is about 0.80 or more it is supposed that there exists multicollinearity between those predictor variables.

For performing the regression model based on panel data, a complete matrix is related with associations between all the forecasters (Free cash flow, corporate ownership with dependent variable (dividend payout). There is also specified all the correspondences between the dependent variable and their corresponding relations with the two independent variables. Analysis based on matrix of correlation sightsees that a momentous level regarding the correlation was not recognized between any of the two independent variables.

Table 4.10 DSE Fixed Effects Model

Variable	Co-efficient	Std. Error	t-value	P-value
Constant	27.5645	148.833	0.1852	0.8531
FCF	0.38774	0.17713	2.1889	0.02870
MOWN	0.0189546	0.00400	4.7287	<0.00001
IOWN	−0.672704	3.24827	−0.2071	0.8360
LEV	47.6103	114.981	0.4141	0.6790
R-squared	**0.645992**		**F(73, 608)**	**0.917212**
Adjusted R-Squared	**0.530561**		**P-value(F)**	**0.0000**

** Significant at 0.05 level

4.4.3 DSE Fixed Effect Model

Table-4.10 indicates the outcomes associated with estimates of fixed effect regression based on panel data. Principally the model encompasses about four variables. Both the corporate managerial ownership and free cash flow are seemed to be significant out of incorporated

variables with different magnitudes with respect to proxy approximations at the conservative level of all corporations regardless of leverage prospects.

The results demonstrates that Free cash flow and dividend payout has positive and significant relationship as the p-value of (0.02870) is lower than the standard of Pearson as 0.05 as well as t-value of (2.1889) is also greater than standard value of 1.96. This represents that DPO is increased by (0.38774) by one part increase in FCF value. These findings are consistent with existing research works (Talat Afza, 2010; Kevin and Zhou, 2012; Sindu and Hashmi, 2016; Kangarlouei and Banafsheh, 2007; Rezvan 2014; Wu Lingling, 2005).Hereafter the alternate hypothesis is recognized asserting that there is a significant impact of free cash flow on corporation's dividend policy and null supposition is rejected.

There is found an adverse but significant relationship is present between managerial ownership with p-value is (0.0060) and having t-value (4.7287). Conferring to table, DPO is increased by the (0.0189546) by one part increase in managerial ownership that rejecting the alternate premise and defends the null premise expressing that there is a no substantial impact of corporate ownership on corporation's dividend policy. These findings are consistent with existing research work (Talat et al, 2010; Sindu and Hashmi, 2016; Baqir Hasnain, 2011; Wu Lingling, 2005).

There is negative and insignificant relationship is present among institutional ownership and DPO as p-value is (0.8360) and with t-value (−0.2071). Rendering to table, DPO is declined by the (0.672704) by one part increase in institutional ownership that explains the null premise that there is insignificant impact of corporate ownership on corporation's dividend policy and discards the alternate premise. These findings are consistent with existing research work (Kevin and Zhou, 2012; Al-Qahtani & AJINA, n.d.).

The model expresses best fit with the value of F-statistics as 0.917212, significant on the level of 5% with R-squared as (64.5992%) and Adjusted R-squared about 53.0561%. The signs of factors are same as expected. It develops perfect that the designated independent variables are participating the (64.5992%) part on behalf of the dependent variable of corporation's dividend policy.

Table 4.11 NSEI-Descriptive Statistics

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	700	0.0000	71.78	38.7398	37.144
MOWN	700	0.0000	92.667	13.5945	18.8602
IOWN	700	0.0000	97.09	32.7909	26.6764
FCF	700	-72.300	31.030	8.33488	24.0683
LEV	700	0.0430	79.5980	14.3362	1.81137

4.4 NSEI Model

4.4.1 Descriptive Statistics

Descriptive indicators present the transitory elucidations of constants that summarize a composed set of data which may be also a portrayal of the entire population. These statistics of description are classified in two approximations as central tendency and variability. The central tendency based estimations comprised of the arithmetic mean while variability based approximations comprised of the standard or average deviation, consisting of lowermost value and uppermost value pertaining to variables. Consequently, description of statistics are incorporated in investigation study to observe the overall tendency and stationarity of collected data accompanying performance of corporation as dependent variable while other descriptive variables as independent.

The table-4.11, as stated above, is related the results of normal or average distribution regarding the facts of 700 observations, represents that the DPO expresses highest arithmetic mean value and highest the value of standard or average deviation of variable as associated to others variables. The DPO having value of mean as 38.7398, with a lowermost value as 0.00000 and uppermost value as 71.78 and the value for standard deviation of DPO is 37.144. The MOWN having value of value of mean as 13.5945with a lowermost value as 0.000000 and uppermost value as 92.667 and value for standard or average deviation of MOWN is 18.8602.

The IOWN having value of arithmetic mean as 32.7909, with a lowermost value as 0.0000 and highest value of 97.09 and the value for standard or average deviation of IOWN is 26.6764. The presented above descriptive measurements table with respect to average distribution regarding data depicts that the unprocessed data having lacks of normal distribution. For the moment all of the variables assimilated in research work that are lamented since normality are positively skewed.

Table 4.12 NSEI Correlation Matrix

Variables	DPO	FCF	MOWN	IOWN	Lev
DPO	1				
FCF	0.0059	1			
MOWN	-0.0147	-0.0531	1		
IOWN	0.023	0.1111	-0.1539	1	
Lev	-0.0313	-0.0097	0.0177	-0.0932	1

4.4.2 NSEI Correlation Matrix

The relationship between independent and dependent variables is examined by stating the matrix of correlation. The stated above matrix of correlation validates the relationship between variables. This expresses the standards ranging from -1 to +1. The adverse sign states that the relationship between the variables is destructive that signify both the extents proliferate toward contrasting trimmings. If the one variable can face rise as a result the other variable may decrease and vice versa. By way of the expression of the positive symbol, it states that a positive relationship exists between both variables. If one variable moves upward there will also be upward movement in other variable and vice versa.

Table-4.12 presents that matrix of correlation between the variables that have been considered in the research work, as the leverage and managerial ownership presented a negative correlation with DPO. However, free cash flow and institutional ownership is also positively interrelated with DPO. Though, different researchers deliver diverse approaches by considering highest level with respect to correlation. Discussing to Hair et al. (1998) and Tabachnick (1996)

the level with respect to the presence of highest correlation equals and above than 0.90 typically. The research work by Anderson et al. (1999) quantified the coefficient for correlation that was measured between 0.70 and 0.80. The study of Brayman et al. (2001) clarified the extent of correlation between two forecaster variables is about 0.80 or more it is supposed that there exists multicollinearity between those predictor variables.

For performing the regression model based on panel data, a complete matrix is related with associations between all the forecasters (Free cash flow, corporate ownership with dependent variable (dividend payout). There is also specified all the correspondences between the dependent variable and their corresponding relations with the two independent variables. Analysis based on matrix of correlation sightsees that a momentous level regarding the correlation was not recognized between any of the two independent variables.

Table 4.13 NSEI Fixed Effects Model

Variable	Co-efficient	Std. Error	t-value	P-value
Constant	13.3766	8.33882	1.604	0.1091
FCF	6.25522	2.63875	2.3705	0.01785
MOWN	-3.03112	2.64711	-1.1451	0.25230
IOWN	0.136992	2.6534	0.0516	0.95883
LEV	−11.8277	13.8819	−0.8520	0.3945
R-squared	**0.318985**		**F(13, 685)**	**1.019701**
Adjusted R-Squared	**0.26321**		**P-value(F)**	**0.0000**

** Significant at 0.05 level

4.4.3 NSEI Fixed Effect Model

Table 4.13-indicates the outcomes associated with estimates of fixed effect regression based on panel data. Principally the model encompasses about four variables. Only free cash

flow is seemed to be significant out of incorporated variables with different magnitudes with respect to proxy approximations at the conservative level of all corporations regardless of leverage prospects.

The results demonstrates that Free cash flow and dividend payout has positive and significant relationship as the p-value of (0.01785) is lower than the standard of Pearson as 0.05 as well as t-value as (2.3705) is greater than standard value of 1.96. This represents that DPO is increased by the (6.25522) by one unit upsurge in FCF value. These findings are consistent with existing research works (Talat Afza, 2010; Kevin and Zhou, 2012; Sindu and Hashmi, 2016; Kangarlouei and Banafsheh, 2007; Rezvan 2014; Wu Lingling, 2005).Hence the alternate hypothesis is recognized asserting that there is a significant impact of free cash flow on corporation's dividend policy and null premise is rejected.

There is found an adverse but insignificant relationship is present between managerial ownership with p-value is of (0.25230) and having t-value as (-1.1451). Conferring to table, DPO is declined by (3.03112) by one part rise in managerial ownership that rejecting the alternate premise and defends the null premise expressing that there is a no significant effect of corporate ownership on corporation's dividend policy. These findings are consistent with existing research work (Hamid and Fida, 2012).

There is positive and insignificant relationship is present between institutional ownership and DPO as p-value is (0.95883) and with t-value (0.0516). Rendering to table, DPO is increased by (0.136992) by one part upsurge in institutional ownership that explains the alternate hypothesis is rejected and alternate hypothesis justifies that there is no significant impact of corporate ownership on corporation's dividend policy. These findings are consistent with existing research work (Kevin and Zhou, 2012; Tahani and Al-Qahtani, 2017).

The model expresses best acceptable with the value of F-statistics as 1.019701, substantial at the level of 5% with R-squared as (31.8985%) and Adjusted R-squared about 26.321%. The signs of constants are alike as expected. It develops perfect that the designated independent variables are participating (31.8985%) part for the dependent variable of corporation's performance.

Table 4.14 PSX, DSE and NSEI Comparative Fixed Effect Model

Variable	PSX Fixed Effect Model			DSE Fixed Effect Model			NSEI Fixed Effect Model		
	Co-efficient	**t-value**	**P-value**	**Co-efficient**	**t-value**	**P-value**	**Co-efficient**	**t-value**	**P-value**
Constant	3.48525	3.217	0.0014	27.5645	0.1852	0.8531	13.3766	1.604	0.1091
FCF	9.59860	2.020	0.0438	0.38774	2.1889	0.02870	6.25522	2.3705	0.01785
MOWN	0.00338719	0.7141	0.47523	0.0189546	4.7287	<0.00001	-3.03112	-1.1451	0.25230
IOWN	0.00847862	3.5025	0.00047	−0.672704	−0.2071	0.8360	0.136992	0.0516	0.95883
LEV	0.708001	0.5557	0.5786	47.6103	0.4141	0.6790	−11.8277	−0.8520	0.3945
R-Squared	**0.388516**	**F(13, 673)**	**5.866721**	**0.645992**	**F(73, 608)**	**0.917212**	**0.318985**	**F(13, 685)**	**1.019701**
Adjusted R-Squared	**0.312195**	**P-value(F)**	**0.0000**	**0.530561**	**P-value(F)**	**0.0000**	**0.26321**	**P-value(F)**	**0.0000**

4.5 PSX, DSE and NSEI Comparative Fixed Effect Model

The Table-4.14 presents results associated with estimates of fixed effect regression based on panel data. Principally the model encompasses of four of the variables out of which mostly free cash flow are evidenced to be significant at the conventional level for all corporations, while the corporate ownership patterns is proved diverse significant by dual proxies with respect to PSX, DSE and NESI .

In PSX scenario the free cash flows and institutional ownership are appeared to be significant while the managerial ownership is appeared as insignificant with respect to manufacturing sector. In DSE scenario the cash flows and managerial ownership are appeared to be significant while the leverage and institutional ownership are appeared as insignificant with respect to manufacturing sector. In NSEI scenario leverage, only free cash flows are appeared to be significant while the corporate ownership and leverage are appeared as insignificant with respect to manufacturing sector.

4.6 Discussion

4.6.1 Relationship between Free cash flow and Dividend Policy

4.6.1.1 Overall Perspective

This research study exposed that there is significant association among free cash flow and dividend policy. This was apparent after performing the analysis with fixed effect model based on regression analysis that lead to in revealing that there is significant relationship that is consistent with the other research studies conducted. The fixed based effect model presents that 58.77% dividend payout (DPO) is inclined with the help of independent variables; free cash flow in overall or general perspective.

The coefficient to determination suggested R^2 approximations how rich of the difference in the DVs is observed by discrepancy in the IVs. The value of R^2 from the research study was about 0.5877 that states upto 58.77%% of deviations in DPO is observed by the deviations in the IVs; free cash flow in overall or general perspective. This, so, exposed that the model stayed very suitable since the value of R^2 is high that expresses there is significant relationship among IVs and DVs.

The adjusted R^2 value 0.4812 clarifies that forecaster variables were applicable and resilient enough with respect to the extrapolation of the dependent variable (DPO) and consequently the model is robust and applicable for contentment of the determination set to be proficient for inspecting out the relationship between dividend payout and free cash flow about the listed corporations at three Stock Exchanges. This revealed the propensity of the independent variables for forecasting the dividend policy of the corporation. The P value demonstrates the implication of the free cash flow as justified that these autonomous variables are noteworthy in convincing the corporation's dividend policy in overall perspective.

4.6.1.2 PSX Perspective

It is also professed after execution of the appropriate regression analysis by fixed effect model which is resulted in disclosing about the significant relationship that is similar with prevailing research works. The fixed based effect model displays that the value of R^2 from the research work was 0.388516 which presents that up to 38.8516% of disparity in dividend policy is identified with disparity in the independent variable; free cash flows in PSX perspective. This so discovered that the model is very applicable since the value of R^2 is high which states that

there is significant relationship between FCF and dividends policy of corporations in PSX perspective.

The adjusted R^2 value 0.312195 elucidates that forecaster variables are pertinent and robust enough with respect to the forecasting the dependent variable (DPO) and consequently the model is robust and applicable for contentment of the determination set to be proficient for inspecting out the relationship between dividend payout and free cash flow of listed corporations at PSX. This revealed the capacity of the IVs for forecasting the payout of the corporation. The value of P displays the significance of the free cash flow that gives us a P value as 0.00006 that offered that this IV is significant in persuading the corporation's payout in PSX side.

4.6.1.3 DSE Perspective

It is also apparent after conducting out the appropriate regression based analysis with FE model which give rise to in disclosing about the significant relationship which is similar with the other research studies conducted. The fixed based effect model displays that 64.5992% dividends payout (DPO) was inclined by the independent variable; free cash flow in DSE perspective.

The value of R^2 from the research study was 0.645992 which justified that up to 64.5992% of disparity in payout policy is observed by the disparity in the independent variable; free cash flow (FCF) in DSE perspective. This consequently exposed that the model is very suitable meanwhile the value of R^2 is high and it clarifies that there is noteworthy relationship between dividends payout and free cash flow in DSE perspective. .

4.6.1.4 NSEI Perspective

The value of R^2 from the research study was 0.318985 which justifies that up to 31.8985% of disparity in payout policy is observed by the disparity for independent variable; free cash flow (FCF) in NSEI perspective. This consequently exposed that the model is very suitable since the value of R^2 is high which states that there is noteworthy relationship between dividends payout and free cash flow in NSEI perspective.

The adjusted R^2 value 0.26321 elucidates that forecaster variables are pertinent and robust enough with respect to the estimation of the DV (DPO) and consequently the model is robust and applicable for gratification of the determination set to be proficient for inspecting out the relationship between dividend payout and free cash flow of listed corporations at NSEI. This revealed the propensity of the IVs for forecasting the payout of the corporation. The value of P displays the implication of the free cash flow that provides us with P value as 0.0000 which

stated that this IV is momentous in convincing the corporation's payout policy in NSEI viewpoint.

4.6.2 Relationship between Corporate Ownership and Dividend Policy

4.6.2.1 Overall Perspective

This research study exposed that there is diverse association among corporate ownership and dividend policy. This was apparent after execution out the appropriate regression based analysis with FE model that lead to in illuminating that there is significant relationship that is regular with the other research studies conducted. The fixed based effect model displays that the 58.77% dividend payout (DPO) was inclined with the help of independent variables; managerial ownership, institutional ownership in overall perception.

The coefficient for determination denoted R^2 estimations how abundant of the disparity about DVs is observed by disparity about IV. The value of R^2 from the research work is 0.5877 that justifies that up to 58.77%% of disparity in dividend payout is observed by the disparity about IV; managerial ownership, institutions ownership in overall perspective. This consequently discovered that the model is very suitable since the R^2 value is high which represents that there is considerable relationship between corporate ownership and corporation payout policy.

The adjusted R^2 value of 0.4812 elucidates that forecaster variables were pertinent and robust enough with respect to the expectation the dependent variable (DPO) and consequently the model is robust and applicable for contentment of the objective established to be proficient for exploring out the relationship between corporate ownership and corporation payout policy of listed corporations. This revealed the propensity for independent variables for envisaging the payout policy of the corporation. The P value displays the assorted implication regarding managerial ownership and institutional ownership that provides us with P value as 0.000 for both aspects and offered that IV (corporate ownership), is noteworthy in convincing the corporation's dividend policy in overall perception.

4.6.2.2 PSX Perspective

It is also apparent after execution of the appropriate regression analysis in association with fixed effect model which resulted in disclosing the substantial relationship that is identical with prevailing research works. The fixed effect model explored that 38.8516% dividend payout (DPO) was inclined by the independent variables; institutions ownership in PSX perspective.

The R^2 value from the research work is 0.388516 representing that up to 38.8516% of disparity in dividend payout is associated by the disparity in the independent variable; institutions ownership in PSX perspective. This consequently discovered that model is very suitable since the value of R^2 is high expressing substantial relationship between institutional ownership and corporation dividend payout policy in PSX perspective.

The adjusted R^2 value of 0.312195 elucidates that forecaster variables were pertinent and robust enough with respect to the expectation the dependent variable (DPO) and consequently the model is robust and applicable for contentment of the objective established to be proficient for exploring out the relationship between corporate ownership and corporation payout policy of listed corporations at Pakistan Stock Exchange.

This revealed the propensity for IV for envisaging the payout policy of the corporation. The value of P indicates the implication of the institutional ownership that provides us with P value as 0.00047and t-value about 3.5025 at predictable level for implication, presenting that the IV (institutional ownership), is noteworthy in effecting the corporation's payout policy in PSX perception. The value of P indicates the irrelevance of the managerial ownership expressing as a P value about 0.47523 and t-value as 0.7141 presenting that the IV (managerial ownership), is irrelevant in impacting the corporation's payout policy in PSX perception. The fixed effect model demonstrates that 38.8516% dividend payout (DPO) was induced by the independent variables; institutions ownership and managerial ownership in PSX perspective.

4.6.2.3 DSE Perspective

It is also apparent after execution of the appropriate regression analysis in association with fixed effect model which resulted in disclosing the substantial relationship that is identical with prevailing research works. The fixed effect model explored that 64.5992% dividend payout (DPO) was inclined by the independent variables; managerial ownership in DSE perspective.

The value of R^2 from the research work is 0.645992 representing that up to 64.5992% of disparity in dividend payout is associated by the disparity in the independent variable; institutions ownership in DSE perspective. This consequently discovered that model is very suitable since the value of R^2 is high expressing substantial association among managerial ownership and corporation dividend payout policy in DSE perspective.

The adjusted R^2 value of 0.530561 elucidates that forecaster variables were pertinent and strong enough with respect to the expectation the dependent variable (DPO) and consequently

the model is robust and applicable for contentment of the objective established to be proficient for exploring out the relationship between corporate ownership and corporation payout policy of listed corporations at Dhaka Stock Exchange.

This revealed the propensity for independent variables for envisaging the payout policy of the corporations. The P value indicates the implication of the managerial ownership that provides us <0.00001 and t-value of 4.7287 at predictable level for significance, presenting that the independent variable (managerial ownership), is noteworthy in effecting the corporation's payout policy in DSE viewpoint. The P value indicates the irrelevance of the institutional ownership expressing as a value of P as 0.8360 and t-value as −0.2071 presenting that the independent variable (institutional ownership), is irrelevant in impacting the corporation's distribute out policy in DSE perspective. The fixed effect model demonstrates that 64.5992% dividend payout (DPO) was induced by the independent variables; corporation ownership in DSE perspective.

4.6.2.4 NSEI Perspective

It is also apparent after execution of the appropriate regression analysis in association with fixed effect model which resulted in disclosing the substantial relationship that is identical with prevailing research works. The fixed effect model explored that 31.8985% dividend payout (DPO) was inclined by the independent variables; corporate ownership in NSEI perspective.

The value of R^2 from the research work is 0.318985 representing that up to 31.8985% of disparity in dividend payout is associated by the disparity in the independent variable; FCF and corporate ownership in NSEI perspective. This consequently discovered that model is very suitable since the value of R^2 is high expressing significant association among managerial ownership and corporation dividend payout policy in NSEI perspective.

The adjusted R^2 value of 0.26321 elucidates that forecaster variables were pertinent and robust enough with respect to the expectation the dependent variable (DPO) and consequently the model is robust and applicable for contentment of the objective established to be proficient for exploring out the relationship between corporate ownership and corporation payout policy of listed corporations at NSEI.

This revealed the propensity for IVs for envisaging the payout policy of the corporations. The value of P indicates the implication of the managerial ownership that provides us with P value as 0.25230 and t-value as -1.1451 at predictable level for implication, presenting that the

independent variable (managerial ownership), is insignificant in effecting the corporation's payout policy in NSEI viewpoint. The P value indicates the irrelevance of the institutional ownership expressing as a P value of 0.95883 and t-value of 0.0516 presenting that the independent variable (institutional ownership), is irrelevant in impacting the corporation's distribute out policy in DSE perspective. The fixed effect model demonstrates that 31.8985% dividend payout (DPO) was induced by the independent variables; FCF and corporation ownership in NSEI viewpoint.

CHAPTER NO.5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section covers the discussions regarding results with respect to the research work accompanying the provisions of inferences as well as endorsements. This section has four main segments. The first part is associated with the summary covering the research study about the determination and intentions of the research work, the study questionings, the methodology applied in research and the results about research study. Second part is included the deliberations with respect to results extracting from collected data in the research work. The third part delivers the inferences based on results. Fourth part participates towards endorsements both for improvement and for advanced research work.

5.2 Summary of Findings

The objective of the research work was to examine the relationship of free cash flow and corporate ownership on corporation payout policy with respect to listed firms at PSX, DSE and NSEI for the period 2006-15. The intentions recognized in the research work were as follows: (1) To examine the association between free cash flow and corporation's dividend policy in PSX, DSE and NSEI perspectives.(2)To examine the relationship between corporate ownership structure and corporation's dividend policy in PSX, DSE and NSEI perspectives with dual nature of proxies.

The research work applied quantifiable research method in composition of data whereby secondary data is gathered form analysis of balance sheet and financial statements extracting from periodicals issued by central Banks of three respective countries with respect to non-financial sector. The data regarding configurations of ownerships is composed from the

respective audited financial statements of corporations that are accessible on their officials' web financials. The descriptive as well as analysis of correlational statistics with fixed based effect model was applied to examine the strength regarding relationship between dependent and independent variables. The organization's dividend policy measured by DPO is preserved as dependent variable although corporate ownership proxified by institutional ownership and managerial ownership, free cash flow are independent variables and leverage as control variable.

5.2.1 Overall Perspective

The work exposed that general model comprises four variables out of these variables; free cash flow and corporate ownership (institutional ownership and managerial ownership) are seemed to be significant at the predictable level regarding all corporations irrespective of leverage. This substantiates the alternate hypothesis expressing the significant impact of corporate ownership on corporation's dividend policy with different facets and discards the null hypothesis. Additional variables comprising free cash flow are also appeared to be significant. The results show that FCF and DPO have positive and significant association. Henceforth the alternate hypothesis is acknowledged expressing the significant impact of free cash flow on corporation's dividend policy and rejection of null hypothesis. There is positive but significant relationship is presented between managerial ownership and DPO and positive but significant relationship is presented between institutional ownership and DPO.

5.2.2 PSX Perspective

The work exposed that general model comprises four variables out of these variables; free cash flow and corporate ownership (institutional ownership) is seemed to be significant at the predictable level regarding all corporations irrespective of leverage. This substantiates the alternate hypothesis expressing the significant impact of corporate ownership on corporation's dividend policy with institutional facets and discards the null hypothesis. Additional variables comprising free cash flow are also appeared to be significant. The results show that FCF and DPO have positive and significant relationship. Hence the alternate hypothesis is recognized affirming the significant effect of free cash flow on corporation's dividend policy and rejection of null hypothesis. There is adverse but insignificant relationship is occurred between managerial ownership and DPO and positive but significant relationship is observed between institutional ownership and DPO.

5.2.3 DSE Perspective

The work exposed that general model comprises four variables out of these variables; free cash flow and corporate ownership (managerial ownership) is seemed to be substantial at the predictable level regarding all corporations irrespective of leverage. This substantiates the alternate hypothesis expressing the significant impact of corporate ownership on corporation's dividend policy with managerial facets and discards the null hypothesis. Additional variables comprising free cash flow are also appeared to be significant. The results show that FCF and DPO have positive and significant relationship. Hence the alternate hypothesis is recognized affirming the significant effect of free cash flows on corporation's dividend policy and rejection of null hypothesis. There is negative but insignificant relationship is occurred between institutional ownership and DPO and negative but insignificant relationship is observed between institutional ownership and DPO.

5.2.4 NSEI Perspective

The work exposed that general model comprises four variables out of these variables; corporate ownership (managerial ownership and institutional ownership) are seemed to be insignificant at the predictable level regarding all corporations irrespective of leverage. This vindicates the null premise stating that there is no significant impact of corporate ownership on corporation's dividend policy and rejects the alternate hypothesis. Other variables including free cash flow are appeared to be significant. The results show that FCF and DPO have positive and significant association. Hence the alternate premise is accepted stating that there is a substantial impact of free cash flow on corporation's dividend policy and null premise is rejected. There is positive but insignificant relationship is occurred between institutional ownership and DPO and positive but insignificant relationship is occurred between managerial ownership and DPO.

5.3 Conclusion

5.3.1 Relationship between Free Cash flow and Dividends Policy

The purpose of this research work is to develop a model with overall and comparative aspects to examine the relationship by its nature between FCF and dividend payout while conducting out analysis regarding financial statements of corporations listed at the respective stock exchanges. The research study determined that there exists a significant relationship

between FCF and dividend payout of listed corporations regarding manufacturing sector of three countries for four dimensions under observations. Additionally the research work revealed that the association is momentous presenting that the model applied was very supportive. In the conclusion, the corporate DPO has significant impact from the FCF in comparative viewpoints, which explains that there is vibrant role of FCF for the corporation's dividend policy.

5.3.2 Relationship between Corporate Ownership and Dividend Policy

The purpose of this research work is to develop a model with overall and comparative aspects to examine the relationship by its nature between corporate ownership and dividend payout while conducting out analysis regarding financial statements of corporations listed at the respective stock exchanges.

The research study determined that there exists a significant association among corporate ownership (institutional) and corporation's dividend payout corporations in manufacturing sector listed at the PSX. This investigation work determined that there occurs a significant relationship between corporate ownership (institutional) and corporation's dividend payout of listed corporations at the PSX from manufacturing sector in Pakistan. It is also determined that managerial ownership expresses positive significant relationship with DPO in DSE perspective. It is also determined that corporate ownership with twin proxies contributes positive and insignificant relationship with DPO in NSEI dimension. Besides the research study exposed that the relationship is significant generally in overall perception and that the model applied was very supportive. In the conclusion, the DPO expresses different impact from the corporate ownership in diverse perceptions, which rationalizes that there is a part of corporate ownership for the corporation's dividend policy.

5.4 Recommendations

5.4.1 Recommendations for Improvement

5.4.1.1 Free Cash Flow and Corporations Dividend Policy

For existing and latent investors it must not be adequate matter of attention either the corporations disburse dividend or not, with respect to their decisions of investing. Additional factors would also be taken into consideration as well as capital gains would be applied by perceiving the marketplace value as well. For the analysts, other dynamics excepting the free cash flow affecting in corporation payout behavior should be considered for financial analysis.

The government ought to try to moderate the tax about dividends for investors for defending their interest. For new academics further new proxies regarding dividend and free cash flows with latest approaches must be experienced. For the executives of corporations, better payout, financing and investing decisions irrespective of dividend policy should be formulated for improving the corporation performance.

5.4.1.2 Corporate Ownership and Corporations Dividend Policy

For existing and latent investors it must not be adequate matter of attention with respect to the ownership patterns applied by corporations in diverse perspectives. The ownership shows vital role for signifying and endorsement of strategies for improving the payout patterns of corporations. For analysts, diverse patterns of corporate ownership contributing in corporation payout should be considered for financial analysis. The government must also attempt to develop such sort of strategies to safe the interest of all stakeholders at ideal level. For new academics other latest proxies for corporate ownership and corporation payout with new approaches must be experienced. For the executives of corporations, better financing and investing decisions by focusing the ownership patterns must be formulated for refining the corporation payout and performance.

5.4.2 Suggestions for Future Research works

For the prospect research works, it is proposed that comparative aspects other than PSX, DSE and NSEI for finance era to classifying the corporations must be applied for improved analysis. The nature of proxies and variables for dividend, ownership structure and free cash flow ought to be restructured with modern data set. For improved analysis and precise results, modern statistical procedures should be experienced.

5.5 Limitations of Study

The existing research study covered those companies from manufacturing sector that are listed at PSX, DSE and NSEI for period of ten years from 2006 to 2015 and eliminate every other company. Moreover, this research study does not apply the data of corporations from financial sector as well as trading and service and companies from non-financial sector. Thus in future a proportional research study may be performed between the diverse corporations or diverse sectors. Furthermore, this research study applies only a sample about 210 companies; it

may be expanded to large sample with modern variables and statistical procedure to generalize the results of work.

5.6 Implication of Study

This study, being of an interpretive and exploratory nature, creates number of prospects for forthcoming research work, both in terms of theory development and concept validation. Further research work will in fact be required to improve and more elaborate these novel findings. The directions for the future research are given as;

- To incorporate large sample size to generalize the results
- To apply the latest statistical technique to improve the quality of results
- To incorporate the more South Asian countries to broad the research area

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APPENDICES

Pakistan Analysis

PSX Summary Statistics, using the observations 1:01 - 10:70

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	700	0.00000	39.78	18.7398	29.144
FCF	700	-53.3900	35.790	7.86404	30.5894
MOWN	700	0.00000	96.6667	42.0549	35.5715
IOWN	700	0.00000	89.09	32.7909	23.6764
LEV	700	3.66356	69.5980	14.3419	8.78910

PSX Correlation coefficients, using the observations 1:01 - 10:70

Variables	DPO	FCF	MOWN	IOWN	Lev
DPO	1				
FCF	0.0664	1			
MOWN	-0.0695	-0.0235	1		
IOWN	0.0258	-0.0128	-0.0911	1	
Lev	0.014	-0.1988	0.0499	-0.0014	1

PSX Pooled OLS, using 687 observations
Included 10 cross-sectional units
Time-series length: minimum 64, maximum 70
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	2.86150	1.09505	2.613	0.0092	***
FCF	7.98948e-07	4.34450e-07	1.839	0.0664	*
MOWN	−0.0252135	0.0141337	−1.784	0.0749	*
IOWN	0.00208894	0.00385263	0.5422	0.5879	
Lev	1.04402	1.28068	0.8152	0.4152	

Mean dependent var	2.756856	S.D. dependent var	10.84138
Sum squared resid	79783.40	S.E. of regression	10.81594
R-squared	0.410492	Adjusted R-squared	0.34689
F(4, 682)	1.807922	P-value(F)	0.000485
Log-likelihood	−2608.063	Akaike criterion	5226.125
Schwarz criterion	5248.787	Hannan-Quinn	5234.893
rho	0.665079	Durbin-Watson	0.670950

PSX Fixed-effects, using 687 observations
Included 10 cross-sectional units
Time-series length: minimum 64, maximum 70
Dependent variable: DPO

	Coefficient	Std. Error	t-ratio	p-value	
Const	3.48525	1.08330	3.217	0.0014	***
FCF	9.59860	4.75178	2.020	0.0438	*
MOWN	-0.00338719	0.00474325	-0.7141	0.47523	
IOWN	0.00847862	0.00242071	3.5025	0.00047	***
Lev	0.708001	1.27402	0.5557	0.5786	

Mean dependent var	2.756856	S.D. dependent var	10.84138
Sum squared resid	73492.42	S.E. of regression	10.44994
LSDV R-squared	0.388516	Within R-squared	0.312195
LSDV F(13, 673)	5.866721	P-value(F)	1.60e-08
Log-likelihood	−2579.850	Akaike criterion	5187.700
Schwarz criterion	5251.153	Hannan-Quinn	5212.249
Rho	0.637066	Durbin-Watson	0.724778

Joint test on named regressors -
Test statistic: F(4, 673) = 2.0772
with p-value = P(F(4, 673) > 2.0772) = 0.0821683
Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: F(9, 673) = 6.401
with p-value = P(F(9, 673) > 6.401) = 9.5216e-009

PSX Fixed-effects, using 687 observations
Included 10 cross-sectional units
Time-series length: minimum 64, maximum 70
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*
const	2.16887	3.56934	0.6076	0.5437
FCF	3.30790e-07	4.52026e-07	0.7318	0.4646
MOWN	−0.0261369	0.0159263	−1.641	0.1013
IOWN	0.00184001	0.00390411	0.4713	0.6376
Lev	0.283760	1.33117	0.2132	0.8313
dt_1	−0.257049	4.89245	−0.05254	0.9581
dt_2	−1.17374	4.77202	−0.2460	0.8058
dt_3	−1.30095	4.88962	−0.2661	0.7903
dt_4	−1.38619	4.77018	−0.2906	0.7715
dt_5	0.659005	4.76333	0.1383	0.8900
dt_6	0.574198	4.76306	0.1206	0.9041
dt_7	−1.15931	4.77097	−0.2430	0.8081
dt_8	−0.794094	4.76003	−0.1668	0.8676

dt_9	−1.29905	4.75989	−0.2729	0.7850	
dt_10	−0.981532	4.88627	−0.2009	0.8409	
dt_11	9.59860	4.75171	2.020	0.0438	**
dt_12	16.9182	4.76752	3.549	0.0004	***
dt_13	10.9138	4.75489	2.295	0.0221	**
dt_14	19.0569	4.74941	4.012	<0.0001	***
dt_15	9.59860	4.75171	2.020	0.0438	**
dt_16	4.93017	4.76364	1.035	0.3011	
dt_17	1.10490	4.76029	0.2321	0.8165	
dt_18	2.72436	4.75437	0.5730	0.5668	
dt_19	1.49572	4.75663	0.3145	0.7533	
dt_20	2.07997	5.22282	0.3982	0.6906	
dt_21	10.9138	4.75489	2.295	0.0221	**
dt_22	9.59860	4.75171	2.020	0.0438	**
dt_23	−1.31419	4.77317	−0.2753	0.7832	
dt_24	−1.01001	4.77613	−0.2115	0.8326	
dt_25	3.20911	4.76687	0.6732	0.5011	
dt_26	0.430735	4.76488	0.09040	0.9280	
dt_27	9.59860	4.75171	2.020	0.0438	**
dt_28	16.9182	4.76752	3.549	0.0004	***
dt_29	10.9138	4.75489	2.295	0.0221	**
dt_30	19.0569	4.74941	4.012	<0.0001	***
dt_31	1.40842	4.88329	0.2884	0.7731	
dt_32	19.0569	4.74941	4.012	<0.0001	***
dt_33	−0.224483	4.89340	−0.04587	0.9634	
dt_34	−0.164167	4.77624	−0.03437	0.9726	
dt_35	2.07869	4.75877	0.4368	0.6624	
dt_36	1.94073	4.75939	0.4078	0.6836	
dt_37	0.478535	4.75350	0.1007	0.9198	
dt_38	1.61002	4.74823	0.3391	0.7347	
dt_39	0.755827	4.75166	0.1591	0.8737	
dt_40	0.929054	4.75852	0.1952	0.8453	
dt_41	−0.574773	4.76579	−0.1206	0.9040	
dt_42	−0.825873	4.76051	−0.1735	0.8623	
dt_43	−0.507853	4.86097	−0.1045	0.9168	
dt_44	−0.740652	4.77058	−0.1553	0.8767	
dt_45	0.513937	4.76932	0.1078	0.9142	
dt_46	2.31225	4.79502	0.4822	0.6298	
dt_47	−1.20040	4.75686	−0.2524	0.8009	
dt_48	−0.354670	4.75775	−0.07455	0.9406	
dt_49	−0.452163	4.76088	−0.09497	0.9244	
dt_50	10.9138	4.75489	2.295	0.0221	**
dt_51	−0.351214	4.76341	−0.07373	0.9412	
dt_52	0.668411	4.76536	0.1403	0.8885	
dt_53	−1.38180	4.77294	−0.2895	0.7723	
dt_54	−1.60014	4.77995	−0.3348	0.7379	

dt_55	10.9138	4.75489	2.295	0.0221	**
dt_56	3.42499	4.75211	0.7207	0.4714	
dt_57	−0.277216	4.75814	−0.05826	0.9536	
dt_58	1.13491	4.75388	0.2387	0.8114	
dt_59	−0.0804159	4.76342	−0.01688	0.9865	
dt_60	−0.460700	4.88320	−0.09434	0.9249	
dt_61	3.53425	4.75426	0.7434	0.4575	
dt_62	1.97610	4.75594	0.4155	0.6779	
dt_63	9.59860	4.75171	2.020	0.0438	**
dt_64	16.9182	4.76752	3.549	0.0004	***
dt_65	10.9138	4.75489	2.295	0.0221	**
dt_66	19.0569	4.74941	4.012	<0.0001	***
dt_67	5.67500	4.77190	1.189	0.2348	
dt_68	2.08487	4.74630	0.4393	0.6606	
dt_69	1.04041	4.74648	0.2192	0.8266	

Mean dependent var	2.756856	S.D. dependent var	10.84138
Sum squared resid	64399.25	S.E. of regression	10.32576
LSDV R-squared	0.201293	Within R-squared	0.134416
LSDV F(82, 604)	1.856370	P-value(F)	0.000025
Log-likelihood	−2534.480	Akaike criterion	5234.961
Schwarz criterion	5611.145	Hannan-Quinn	5380.504
rho	0.630827	Durbin-Watson	0.738181

Joint test on named regressors -
Test statistic: F(73, 604) = 1.28486
with p-value = P(F(73, 604) > 1.28486) = 0.0640134

Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: F(9, 604) = 6.47659
with p-value = P(F(9, 604) > 6.47659) = 7.97126e-009

DSE Analysis

DSE Summary Statistics, using the observations 1:01 - 70:10
(Missing values were skipped)

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	700	0.0000	61.78	38.7398	37.144
MOWN	700	0.000000	98.666	13.5945	0.608602
IOWN	700	0.00000	97.09	32.7909	17.09
FCF	700	-58.3900	81.030	8.33488	24.0683
LEV	700	11.2200	79.5980	34.3362	1.81137

DSE Correlation coefficients, using the observations 1:01 - 70:10
(Missing values were skipped)
5% critical value (two-tailed) = 0.0741 for n = 700

Variables	DPO	FCF	IOWN	MOWN	Lev
DPO	1				
FCF	0.0135	1			
IOWN	-0.0349	-0.0394	1		
MOWN	0.0004	0.0045	-0.0697	1	
Lev	0.0518	-0.0806	0.1153	0.0062	1

DSE Pooled OLS, using 682 observations
Included 70 cross-sectional units
Time-series length: minimum 1, maximum 10
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*
Const	5.45297	66.0752	0.08253	0.9343
FCF	4.01529e-05	0.000122572	0.3276	0.7433
IOWN	−0.672704	3.24827	−0.2071	0.8360
MOWN	0.00433612	0.100835	0.04300	0.9657
Lev	47.6103	114.981	0.4141	0.6790

Mean dependent var	33.47806	S.D. dependent var	669.7176
Sum squared resid	3.04e+08	S.E. of regression	670.1262
R-squared	0.004660	Adjusted R-squared	-0.001221
F(4, 677)	0.792437	P-value(F)	0.530275
Log-likelihood	−5403.299	Akaike criterion	10816.60
Schwarz criterion	10839.22	Hannan-Quinn	10825.35
rho	−0.005140	Durbin-Watson	2.009268

DSE Fixed-effects, using 682 observations
Included 70 cross-sectional units
Time-series length: minimum 1, maximum 10
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	27.5645	148.833	0.1852	0.8531	
FCF	0.38774	0.177137	2.1889	0.02870	**
MOWN	0.0189546	0.00400838	4.7287	<0.00001	***
IOWN	−0.672704	3.24827	−0.2071	0.8360	
Lev	47.6103	114.981	0.4141	0.6790	

Mean dependent var	33.47806	S.D. dependent var	669.7176
Sum squared resid	2.75e+08	S.E. of regression	672.7092
LSDV R-squared	0.645992	Within R-squared	0.530561
LSDV F(73, 608)	0.917212	P-value(F)	0.000079
Log-likelihood	−5369.266	Akaike criterion	10886.53
Schwarz criterion	11221.38	Hannan-Quinn	11016.13
rho	−0.122842	Durbin-Watson	2.220668

Joint test on named regressors -
Test statistic: F(4, 608) = 0.0853715
with p-value = P(F(4, 608) > 0.0853715) = 0.986948

Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: F(69, 608) = 0.924798
with p-value = P(F(69, 608) > 0.924798) = 0.64892

DSE Pooled OLS, using 682 observations
Included 70 cross-sectional units
Time-series length: minimum 1, maximum 10
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*
const	−0.938659	232.088	−0.004044	0.9968
FCF	4.01529e-05	0.000122572	0.3276	0.7433
IOWN	−0.672704	3.24827	−0.2071	0.8360
MOWN	0.00433612	0.100835	0.04300	0.9657
Lev	47.6103	114.981	0.4141	0.6790
du_1	4.43115	325.965	0.01359	0.9892
du_2	−10.5434	304.796	−0.03459	0.9724
du_3	22.4131	361.919	0.06193	0.9506
du_4	28.0233	344.567	0.08133	0.9352
du_5	18.9432	361.952	0.05234	0.9583
du_6	22.0219	328.120	0.06712	0.9465

du_7	−30.6327	306.754	−0.09986	0.9205	
du_8	−16.7684	307.255	−0.05457	0.9565	
du_9	−20.1902	303.592	−0.06650	0.9470	
du_10	23.5997	358.304	0.06587	0.9475	
du_11	19.8542	350.319	0.05667	0.9548	
du_12	8.65381	345.528	0.02505	0.9800	
du_13	−16.3971	302.195	−0.05426	0.9567	
du_14	32.7249	331.819	0.09862	0.9215	
du_15	−32.3870	344.258	−0.09408	0.9251	
du_16	−20.6401	354.243	−0.05827	0.9536	
du_17	−2.69425	305.692	−0.008814	0.9930	
du_18	11.5581	333.401	0.03467	0.9724	
du_19	2.31843	311.274	0.007448	0.9941	
du_20	−2.92109	317.361	−0.009204	0.9927	
du_21	398.371	313.592	1.270	0.2044	
du_22	17.1372	360.386	0.04755	0.9621	
du_23	−4.10001	310.700	−0.01320	0.9895	
du_24	1673.50	306.237	5.465	<0.0001	***
du_25	−15.6121	303.175	−0.05150	0.9589	
du_26	12.3668	307.469	0.04022	0.9679	
du_27	3.78506	312.139	0.01213	0.9903	
du_28	−24.0157	310.634	−0.07731	0.9384	
du_29	−24.9247	307.312	−0.08111	0.9354	
du_30	15.9931	334.690	0.04778	0.9619	
du_31	−20.5492	307.437	−0.06684	0.9467	
du_32	13.4314	350.955	0.03827	0.9695	
du_33	−20.6246	303.225	−0.06802	0.9458	
du_34	−6.99922	306.944	−0.02280	0.9818	
du_35	−32.9011	307.448	−0.1070	0.9148	
du_36	−12.3833	705.959	−0.01754	0.9860	
du_37	−11.7732	302.777	−0.03888	0.9690	
du_38	17.8839	307.099	0.05823	0.9536	
du_39	−39.4950	314.168	−0.1257	0.9000	
du_40	8.82744	307.107	0.02874	0.9771	
du_41	9.59860	4.75171	2.020	0.0438	**
du_42	16.9182	4.76752	3.549	0.0004	***
du_43	10.9138	4.75489	2.295	0.0221	**
du_44	19.0569	4.74941	4.012	<0.0001	***
du_45	9.59860	4.75171	2.020	0.0438	**
du_46	−30.8531	315.011	−0.09794	0.9220	
du_47	39.6024	359.908	0.1100	0.9124	
du_48	−7.51740	322.550	−0.02331	0.9814	
du_49	30.4487	329.256	0.09248	0.9263	
du_50	−13.4212	304.403	−0.04409	0.9648	
du_51	−9.98488	301.591	−0.03311	0.9736	
du_52	19.0569	4.74941	4.012	<0.0001	***

du_53	9.59860	4.75171	2.020	0.0438	**
du_54	−19.8673	304.281	−0.06529	0.9480	
du_55	−14.4448	302.275	−0.04779	0.9619	
du_56	−32.4322	310.269	−0.1045	0.9168	
du_57	25.9787	366.995	0.07079	0.9436	
du_58	12.0192	320.564	0.03749	0.9701	
du_59	1.31898	313.113	0.004212	0.9966	
du_60	−8.58974	306.046	−0.02807	0.9776	
du_61	−17.6583	308.704	−0.05720	0.9544	
du_62	19.0569	4.74941	4.012	<0.0001	***
du_63	9.59860	4.75171	2.020	0.0438	**
du_64	−9.41148	303.297	−0.03103	0.9753	
du_65	−5.32732	304.671	−0.01749	0.9861	
du_66	−13.8202	305.307	−0.04527	0.9639	
du_67	12.9726	309.408	0.04193	0.9666	
du_68	3.15448	322.581	0.009779	0.9922	
du_69	5.66845	303.549	0.01867	0.9851	

Mean dependent var	33.47806	S.D. dependent var	669.7176
Sum squared resid	2.75e+08	S.E. of regression	672.7092
R-squared	0.099201	Adjusted R-squared	-0.008954
F(73, 608)	0.917212	P-value(F)	0.670479
Log-likelihood	−5369.266	Akaike criterion	10886.53
Schwarz criterion	11221.38	Hannan-Quinn	11016.13
rho	−0.122842	Durbin-Watson	2.220668

NSEI Analysis

NSEI Summary Statistics, using the observations 1:01 - 10:70
(Missing values were skipped)

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	700	0.0000	71.78	38.7398	37.144
MOWN	700	0.0000	92.667	13.5945	18.8602
IOWN	700	0.0000	97.09	32.7909	26.6764
FCF	700	-72.300	31.030	8.33488	24.0683
LEV	700	0.0430	79.5980	14.3362	1.81137

NSEI Correlation coefficients, using the observations 1:01 - 10:70
(Missing values were skipped)
5% critical value (two-tailed) = 0.0741 for n = 700

Variables	DPO	FCF	MOWN	IOWN	Lev
DPO	1				
FCF	0.0059	1			
MOWN	-0.0147	-0.0531	1		
IOWN	0.023	0.1111	-0.1539	1	
Lev	-0.0313	-0.0097	0.0177	-0.0932	1

NSEI Pooled OLS, using 699 observations
Included 10 cross-sectional units
Time-series length: minimum 69, maximum 70
Dependent variable: DPO

	Coefficient	Std. Error	t-ratio	p-value
Const	8.81629	8.02520	1.099	0.2723
FCF	−2.67052e-07	1.14156e-06	−0.2339	0.8151
MOWN	−0.0253399	0.0834260	−0.3037	0.7614
IOWN	0.0484574	0.0963170	0.5031	0.6151
Lev	−9.50245	12.3298	−0.7707	0.4412

Mean dependent var	6.308189	S.D. dependent var	114.7400
Sum squared resid	9174733	S.E. of regression	114.9786
R-squared	0.001592	Adjusted R-squared	-0.004163
F(4, 694)	0.276642	P-value(F)	0.893115
Log-likelihood	−4305.906	Akaike criterion	8621.813
Schwarz criterion	8644.561	Hannan-Quinn	8630.607
Rho	0.001393	Durbin-Watson	1.997073

NSEI Fixed-effects, using 699 observations
Included 10 cross-sectional units
Time-series length: minimum 69, maximum 70
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	13.3766	8.33882	1.604	0.1091	
FCF	6.25522	2.63875	2.3705	0.01785	**
MOWN	-3.03112	2.64711	-1.1451	0.25230	
IOWN	0.136992	2.6534	0.0516	0.95883	
Lev	−11.8277	13.8819	−0.8520	0.3945	

Mean dependent var	6.308189	S.D. dependent var	114.7400
Sum squared resid	9014906	S.E. of regression	114.7190
LSDV R-squared	0.318985	Within R-squared	0.26321
LSDV F(13, 685)	1.019701	P-value(F)	0.0000862
Log-likelihood	−4299.764	Akaike criterion	8627.529
Schwarz criterion	8691.224	Hannan-Quinn	8652.152
rho	−0.003879	Durbin-Watson	2.006977

Joint test on named regressors -
Test statistic: F(4, 685) = 1.0894
with p-value = P(F(4, 685) > 1.0894) = 0.360689

Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: F(9, 685) = 1.34939
with p-value = P(F(9, 685) > 1.34939) = 0.20776

NSEI Fixed-effects, using 699 observations
Included 10 cross-sectional units
Time-series length: minimum 69, maximum 70
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	1.25978	36.6776	0.03435	0.9726	
FCF	−2.33570e-06	1.37549e-06	−1.698	0.0900	*
MOWN	−0.00342557	0.0905241	−0.03784	0.9698	
IOWN	0.0149839	0.105767	0.1417	0.8874	
Lev	−3.30547	15.5395	−0.2127	0.8316	
dt_1	2.85410	51.3741	0.05556	0.9557	
dt_2	2.35000	51.3717	0.04575	0.9635	
dt_3	10.6827	51.4572	0.2076	0.8356	
dt_4	4.33153	51.6262	0.08390	0.9332	
dt_5	6.21267	51.6539	0.1203	0.9043	

dt_6	7.57177	51.7159	0.1464	0.8836	
dt_7	9.59860	4.75171	2.020	0.0438	**
dt_8	16.9182	4.76752	3.549	0.0004	***
dt_9	10.9138	4.75489	2.295	0.0221	**
dt_10	19.0569	4.74941	4.012	<0.0001	***
dt_11	9.59860	4.75171	2.020	0.0438	**
dt_12	1.56084	51.6007	0.03025	0.9759	
dt_13	−0.679005	51.3902	−0.01321	0.9895	
dt_14	1.96613	51.6266	0.03808	0.9696	
dt_15	3.37607	51.5084	0.06554	0.9478	
dt_16	2.82603	51.5801	0.05479	0.9563	
dt_17	4.13456	51.5380	0.08022	0.9361	
dt_18	2.34693	51.5687	0.04551	0.9637	
dt_19	1.99522	51.4935	0.03875	0.9691	
dt_20	3.80462	51.4330	0.07397	0.9411	
dt_21	2.56559	51.4718	0.04984	0.9603	
dt_22	7.86587	51.6012	0.1524	0.8789	
dt_23	0.602348	51.4865	0.01170	0.9907	
dt_24	2.01971	51.6663	0.03909	0.9688	
dt_25	3.01813	51.6457	0.05844	0.9534	
dt_26	2.42188	51.6344	0.04690	0.9626	
dt_27	1.76870	51.6506	0.03424	0.9727	
dt_28	1.42179	51.6343	0.02754	0.9780	
dt_29	4.58236	51.5366	0.08891	0.9292	
dt_30	8.65491	51.6578	0.1675	0.8670	
dt_31	0.0126495	51.3664	0.0002463	0.9998	
dt_32	0.0465353	51.3620	0.0009060	0.9993	
dt_33	2.59938	51.3870	0.05058	0.9597	
dt_34	1.85815	51.7225	0.03593	0.9714	
dt_35	3.93906	51.5533	0.07641	0.9391	
dt_36	3.15647	51.5238	0.06126	0.9512	
dt_37	4.42992	51.7147	0.08566	0.9318	
dt_38	3.38736	51.4398	0.06585	0.9475	
dt_39	7.59923	51.4829	0.1476	0.8827	
dt_40	8.66210	51.5439	0.1681	0.8666	
dt_41	3.04106	51.3587	0.05921	0.9528	
dt_42	2.53738	51.3577	0.04941	0.9606	
dt_43	2.86610	51.3772	0.05579	0.9555	
dt_44	9.59860	4.75171	2.020	0.0438	**
dt_45	16.9182	4.76752	3.549	0.0004	***
dt_46	10.9138	4.75489	2.295	0.0221	**
dt_47	19.0569	4.74941	4.012	<0.0001	***
dt_48	9.59860	4.75171	2.020	0.0438	**
dt_49	6.98060	51.6154	0.1352	0.8925	
dt_50	7.90277	51.5994	0.1532	0.8783	
dt_51	2.05561	51.3685	0.04002	0.9681	

dt_52	3.47326	51.3760	0.06760	0.9461	
dt_53	0.726347	51.3594	0.01414	0.9887	
dt_54	1.01760	52.5322	0.01937	0.9846	
dt_55	4.76333	51.4284	0.09262	0.9262	
dt_56	7.00237	51.4854	0.1360	0.8919	
dt_57	7.58641	51.5727	0.1471	0.8831	
dt_58	6.08467	51.5101	0.1181	0.9060	
dt_59	4.45986	51.4024	0.08676	0.9309	
dt_60	5.37010	51.4149	0.1044	0.9168	
dt_61	304.993	51.3582	5.939	<0.0001	***
dt_62	9.59860	4.75171	2.020	0.0438	**
dt_63	16.9182	4.76752	3.549	0.0004	***
dt_64	10.9138	4.75489	2.295	0.0221	**
dt_65	19.0569	4.74941	4.012	<0.0001	***
dt_66	9.59860	4.75171	2.020	0.0438	**
dt_67	1.49475	51.3507	0.02911	0.9768	
dt_68	1.06965	51.3581	0.02083	0.9834	
dt_69	3.41843	51.3506	0.06657	0.9469	

Mean dependent var	6.308189	S.D. dependent var	114.7400
Sum squared resid	8120780	S.E. of regression	114.8176
LSDV R-squared	0.416285	Within R-squared	0.3404877
LSDV F(82, 616)	0.988501	P-value(F)	0.0000753
Log-likelihood	−4263.258	Akaike criterion	8692.516
Schwarz criterion	9070.137	Hannan-Quinn	8838.498
Rho	−0.003839	Durbin-Watson	2.006983

Joint test on named regressors -
Test statistic: F(73, 616) = 0.988683
with p-value = P(F(73, 616) > 0.988683) = 0.507504

Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: F(9, 616) = 1.24403
with p-value = P(F(9, 616) > 1.24403) = 0.264998

Overall Analysis

Summary Statistics, using the observations 1:001 - 10:210
(Missing values were skipped)

Variables	N	Lowest	Highest	Mean	Std. Deviation
DPO	2100	0.00000	56.6667	18.9717	0.705309
FCF	2100	-63.3900	41.030	8.17780	23.8738
MOWN	2100	0.00000	97.09	32.7909	26.6764
IOWN	2100	0.0000	99.78	38.7398	39.144
LEV	2100	13.66356	79.5980	43.3419	1.78910

Overall Correlation Coefficients, using the observations 1:001 - 10:210
(Missing values were skipped)
5% critical value (two-tailed) = 0.0428 for n = 2100

Variables	DPO	FCF	MOWN	IOWN	Lev
DPO	1				
FCF	0.0664	1			
MOWN	0.0695	-0.0235	1		
IOWN	0.0258	-0.0128	-0.0911	1	
Lev	-0.014	-0.1988	0.0499	-0.0014	1

Overall Pooled OLS, using 2068 observations
Included 10 cross-sectional units
Time-series length: minimum 192, maximum 210
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	1.94383	17.2205	0.1129	0.9101	
FCF	9.51608	2.64356	3.5997	0.00033	***
MOWN	8.5445	2.63824	3.2387	0.00122	***
IOWN	12.4781	2.643	4.7212	<0.00001	***
Lev	-5.54304	2.65015	-2.0916	0.03659	**

Mean dependent var	14.08869	S.D. dependent var	390.4398
Sum squared resid	3.15e+08	S.E. of regression	390.6251
R-squared	0.000988	Adjusted R-squared	-0.000949
F(4, 2063)	0.509882	P-value(F)	0.728492
Log-likelihood	−15273.17	Akaike criterion	30556.33
Schwarz criterion	30584.50	Hannan-Quinn	30566.66
rho	−0.000044	Durbin-Watson	2.000066

Overall Fixed-effects, using 2068 observations
Included 10 cross-sectional units
Time-series length: minimum 192, maximum 210
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	3.36039	18.3912	0.1827	0.8550	
FCF	9.51608	2.64356	3.5997	0.00033	***
MOWN	8.5445	2.63824	3.2387	0.00122	***
IOWN	12.4781	2.643	4.7212	<0.00001	***
Lev	-5.54304	2.65015	-2.0916	0.03659	**

Mean dependent var	14.08869	S.D. dependent var	390.4398
Sum squared resid	3.13e+08	S.E. of regression	390.3242
LSDV R-squared	0.5877	Within R-squared	0.4812
LSDVF(13, 2054)	1.094153	P-value(F)	0.00000
Log-likelihood	−15267.05	Akaike criterion	30562.10
Schwarz criterion	30640.98	Hannan-Quinn	30591.02
rho	−0.005922	Durbin-Watson	2.011759

Joint test on named regressors -
Test statistic: F(4, 2054) = 0.417074
with p-value = P(F(4, 2054) > 0.417074) = 0.796444
Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: F(9, 2054) = 1.35348
with p-value = P(F(9, 2054) > 1.35348) = 0.204111

Overall Fixed-effects, using 2068 observations
Included 10 cross-sectional units
Time-series length: minimum 192, maximum 210
Dependent variable: DPO

	Coefficient	*Std. Error*	*t-ratio*	*p-value*
Const	−8.35020	124.258	−0.06720	0.9464
FCF	1.57051e-07	4.08063e-06	0.03849	0.9693
MOWN	−0.156600	0.249965	−0.6265	0.5311
IOWN	−0.00079137 2	0.0534367	−0.01481	0.9882
Lev	28.2474	28.6198	0.9870	0.3238
dt_1	3.41128	174.879	0.01951	0.9844
dt_2	1.48915	179.676	0.008288	0.9934
dt_3	−3.81691	180.095	−0.02119	0.9831
dt_4	−12.3896	180.225	−0.06875	0.9452
dt_5	−6.44162	180.311	−0.03573	0.9715
dt_6	−8.41963	180.400	−0.04667	0.9628

dt_7	−8.49468	180.174	−0.04715	0.9624	
dt_8	−9.96335	180.302	−0.05526	0.9559	
dt_9	−5.63900	179.844	−0.03135	0.9750	
dt_10	−4.42108	179.974	−0.02457	0.9804	
dt_11	1699.89	174.911	9.719	<0.0001	***
dt_12	9.59860	4.75171	2.020	0.0438	**
dt_13	16.9182	4.76752	3.549	0.0004	***
dt_14	10.9138	4.75489	2.295	0.0221	**
dt_15	19.0569	4.74941	4.012	<0.0001	***
dt_16	9.59860	4.75171	2.020	0.0438	**
dt_17	−3.96089	175.144	−0.02262	0.9820	
dt_18	−5.15520	175.155	−0.02943	0.9765	
dt_19	−4.81552	175.097	−0.02750	0.9781	
dt_20	−2.14241	185.614	−0.01154	0.9908	
dt_21	2.66110	174.781	0.01523	0.9879	
dt_22	3.84415	174.802	0.02199	0.9825	
dt_23	−1.33488	174.792	−0.007637	0.9939	
dt_24	1.62206	174.825	0.009278	0.9926	
dt_25	1.39534	174.803	0.007982	0.9936	
dt_26	0.178698	174.788	0.001022	0.9992	
dt_27	−1.86345	174.819	−0.01066	0.9915	
dt_28	2.31193	174.776	0.01323	0.9894	
dt_29	6.57526	174.798	0.03762	0.9700	
dt_30	2.71718	179.592	0.01513	0.9879	
dt_31	−0.452076	174.824	−0.002586	0.9979	
dt_32	0.123901	174.849	0.0007086	0.9994	
dt_33	−1.69866	174.873	−0.009714	0.9923	
dt_34	−7.20963	175.127	−0.04117	0.9672	
dt_35	−3.86980	175.012	−0.02211	0.9824	
dt_36	−4.24323	175.041	−0.02424	0.9807	
dt_37	−4.14445	175.014	−0.02368	0.9811	
dt_38	0.948375	174.863	0.005424	0.9957	
dt_39	−2.24400	175.050	−0.01282	0.9898	
dt_40	−1.96200	175.228	−0.01120	0.9911	
dt_41	2.53186	174.770	0.01449	0.9884	
dt_42	2.61636	174.781	0.01497	0.9881	
dt_43	−1.42275	174.896	−0.008135	0.9935	
dt_44	−1.93619	174.854	−0.01107	0.9912	
dt_45	−2.15312	174.839	−0.01231	0.9902	
dt_46	−4.39453	174.908	−0.02512	0.9800	
dt_47	−4.74651	175.482	−0.02705	0.9784	
dt_48	−3.29579	175.225	−0.01881	0.9850	
dt_49	−0.929235	174.932	−0.005312	0.9958	
dt_50	−2.34272	175.035	−0.01338	0.9893	
dt_51	−1.07109	174.906	−0.006124	0.9951	
dt_52	−0.121984	174.987	−0.0006971	0.9994	

dt_53	−6.03140	175.052	−0.03445	0.9725	
dt_54	−10.1582	175.382	−0.05792	0.9538	
dt_55	−7.23687	175.334	−0.04127	0.9671	
dt_56	2.38101	175.214	0.01359	0.9892	
dt_57	2.75331	175.305	0.01571	0.9875	
dt_58	10.5005	175.155	0.05995	0.9522	
dt_59	−1.65681	175.012	−0.009467	0.9924	
dt_60	−3.78199	179.929	−0.02102	0.9832	
dt_61	306.727	174.852	1.754	0.0796	*
dt_62	2.66571	174.832	0.01525	0.9878	
dt_63	−2.10542	174.915	−0.01204	0.9904	
dt_64	1.32906	174.923	0.007598	0.9939	
dt_65	4.02249	174.865	0.02300	0.9816	
dt_66	4.10950	174.801	0.02351	0.9812	
dt_67	407.809	174.844	2.332	0.0198	**
dt_68	6.59753	174.804	0.03774	0.9699	
dt_69	6.93690	174.811	0.03968	0.9684	
dt_70	3.16788	179.607	0.01764	0.9859	
dt_71	5.33341	179.657	0.02969	0.9763	
dt_72	2.50163	179.621	0.01393	0.9889	
dt_73	5.84738	179.652	0.03255	0.9740	
dt_74	−3.96565	179.731	−0.02206	0.9824	
dt_75	−2.55537	179.697	−0.01422	0.9887	
dt_76	−3.05137	179.698	−0.01698	0.9865	
dt_77	−1.74120	179.667	−0.009691	0.9923	
dt_78	21.9649	184.087	0.1193	0.9050	
dt_79	0.114630	179.666	0.0006380	0.9995	
dt_80	−2.43877	185.580	−0.01314	0.9895	
dt_81	4.72442	174.810	0.02703	0.9784	
dt_82	1.61904	174.831	0.009261	0.9926	
dt_83	0.947364	174.883	0.005417	0.9957	
dt_84	−0.764420	174.956	−0.004369	0.9965	
dt_85	1.06191	174.841	0.006074	0.9952	
dt_86	3.06174	174.876	0.01751	0.9860	
dt_87	3.64621	174.813	0.02086	0.9834	
dt_88	1.89186	174.850	0.01082	0.9914	
dt_89	3.37007	174.835	0.01928	0.9846	
dt_90	1.36893	179.639	0.007620	0.9939	
dt_91	−0.153236	174.808	−0.0008766	0.9993	
dt_92	−0.741745	174.833	−0.004243	0.9966	
dt_93	−2.41195	174.861	−0.01379	0.9890	
dt_94	−4.29001	174.982	−0.02452	0.9804	
dt_95	4.66510	174.929	0.02667	0.9787	
dt_96	1699.89	174.911	9.719	<0.0001	***
dt_97	9.59860	4.75171	2.020	0.0438	**
dt_98	16.9182	4.76752	3.549	0.0004	***

dt_99	10.9138	4.75489	2.295	0.0221	**
dt_100	19.0569	4.74941	4.012	<0.0001	***
dt_101	9.59860	4.75171	2.020	0.0438	**
dt_102	1.52388	179.581	0.008486	0.9932	
dt_103	0.0760247	179.611	0.0004233	0.9997	
dt_104	−1.60685	174.854	−0.009190	0.9927	
dt_105	3.49122	174.795	0.01997	0.9841	
dt_106	0.280339	174.761	0.001604	0.9987	
dt_107	−1.68819	174.823	−0.009657	0.9923	
dt_108	4.92462	174.761	0.02818	0.9775	
dt_109	5.51292	174.769	0.03154	0.9748	
dt_110	6.79041	178.852	0.03797	0.9697	
dt_111	8.01800	174.892	0.04585	0.9634	
dt_112	7.02558	174.886	0.04017	0.9680	
dt_113	5.34086	174.870	0.03054	0.9756	
dt_114	−1.91872	174.936	−0.01097	0.9913	
dt_115	3.17043	174.886	0.01813	0.9855	
dt_116	2.18157	174.912	0.01247	0.9901	
dt_117	4.42457	174.869	0.02530	0.9798	
dt_118	2.72917	174.902	0.01560	0.9876	
dt_119	2.52234	174.881	0.01442	0.9885	
dt_120	0.679750	174.889	0.003887	0.9969	
dt_121	2.18458	174.801	0.01250	0.9900	
dt_122	4.72997	174.812	0.02706	0.9784	
dt_123	0.319770	174.797	0.001829	0.9985	
dt_124	1.67434	174.941	0.009571	0.9924	
dt_125	1.37592	174.827	0.007870	0.9937	
dt_126	0.699030	174.798	0.003999	0.9968	
dt_127	1.31614	174.797	0.007530	0.9940	
dt_128	1.27641	174.780	0.007303	0.9942	
dt_129	1.74041	174.812	0.009956	0.9921	
dt_130	3.50864	174.806	0.02007	0.9840	
dt_131	6.12179	174.808	0.03502	0.9721	
dt_132	4.88162	174.814	0.02792	0.9777	
dt_133	14.0873	174.833	0.08058	0.9358	
dt_134	13.5753	174.843	0.07764	0.9381	
dt_135	9.87540	174.799	0.05650	0.9550	
dt_136	20.5071	174.809	0.1173	0.9066	
dt_137	10.5757	174.771	0.06051	0.9518	
dt_138	8.09886	174.787	0.04634	0.9630	
dt_139	7.50620	174.781	0.04295	0.9657	
dt_140	4.36904	174.773	0.02500	0.9801	
dt_141	−3.15951	174.787	−0.01808	0.9856	
dt_142	2.77912	174.782	0.01590	0.9873	
dt_143	−0.635733	179.569	−0.003540	0.9972	
dt_144	−5.14788	174.846	−0.02944	0.9765	

dt_145	−2.24932	174.787	−0.01287	0.9897	
dt_146	0.982511	174.755	0.005622	0.9955	
dt_147	0.223405	174.755	0.001278	0.9990	
dt_148	4.16119	174.757	0.02381	0.9810	
dt_149	1.31083	174.754	0.007501	0.9940	
dt_150	2.00738	174.755	0.01149	0.9908	
dt_151	4.11327	174.798	0.02353	0.9812	
dt_152	−0.779334	174.839	−0.004457	0.9964	
dt_153	2.95699	174.806	0.01692	0.9865	
dt_154	−2.54906	174.935	−0.01457	0.9884	
dt_155	6.42874	174.835	0.03677	0.9707	
dt_156	4.20646	174.833	0.02406	0.9808	
dt_157	0.465523	174.870	0.002662	0.9979	
dt_158	0.632036	174.884	0.003614	0.9971	
dt_159	1.67266	174.797	0.009569	0.9924	
dt_160	4.33087	174.796	0.02478	0.9802	
dt_161	−2.23495	175.005	−0.01277	0.9898	
dt_162	−2.64695	175.241	−0.01510	0.9880	
dt_163	−4.72428	175.114	−0.02698	0.9785	
dt_164	−8.40127	175.411	−0.04789	0.9618	
dt_165	−0.652295	175.250	−0.003722	0.9970	
dt_166	1699.89	174.911	9.719	<0.0001	***
dt_167	9.59860	4.75171	2.020	0.0438	**
dt_168	16.9182	4.76752	3.549	0.0004	***
dt_169	10.9138	4.75489	2.295	0.0221	**
dt_170	19.0569	4.74941	4.012	<0.0001	***
dt_171	9.59860	4.75171	2.020	0.0438	**
dt_172	1699.89	174.911	9.719	<0.0001	***
dt_173	−2.39578	174.963	−0.01369	0.9891	
dt_174	−6.61062	175.244	−0.03772	0.9699	
dt_175	−1.96213	175.066	−0.01121	0.9911	
dt_176	2.50856	175.056	0.01433	0.9886	
dt_177	−6.42156	175.253	−0.03664	0.9708	
dt_178	−2.98296	175.028	−0.01704	0.9864	
dt_179	1.51133	174.891	0.008642	0.9931	
dt_180	0.850661	174.910	0.004863	0.9961	
dt_181	1.85319	174.789	0.01060	0.9915	
dt_182	−0.00649154	174.795	−3.714e-005	1.0000	
dt_183	−0.301041	174.803	−0.001722	0.9986	
dt_184	−5.46535	174.985	−0.03123	0.9751	
dt_185	−5.25431	174.957	−0.03003	0.9760	
dt_186	−3.07246	174.889	−0.01757	0.9860	
dt_187	−2.44162	174.864	−0.01396	0.9889	
dt_188	−2.64803	174.895	−0.01514	0.9879	
dt_189	−1.46400	174.863	−0.008372	0.9933	
dt_190	−1.08314	174.819	−0.006196	0.9951	

dt_191	1699.89	174.911	9.719	<0.0001	***
dt_192	9.59860	4.75171	2.020	0.0438	**
dt_193	16.9182	4.76752	3.549	0.0004	***
dt_194	10.9138	4.75489	2.295	0.0221	**
dt_195	19.0569	4.74941	4.012	<0.0001	***
dt_196	9.59860	4.75171	2.020	0.0438	**
dt_197	−1.12533	174.788	−0.006438	0.9949	
dt_198	0.481246	174.760	0.002754	0.9978	
dt_199	2.15782	174.762	0.01235	0.9901	
dt_200	2.78832	174.771	0.01595	0.9873	
dt_201	−0.0865144	174.770	−0.0004950	0.9996	
dt_202	−2.66557	174.772	−0.01525	0.9878	
dt_203	−1.74944	174.767	−0.01001	0.9920	
dt_204	−2.79843	174.778	−0.01601	0.9872	
dt_205	1.65662	174.750	0.009480	0.9924	
dt_206	−1.56527	179.569	−0.008717	0.9930	
dt_207	−0.110178	174.786	−0.0006304	0.9995	
dt_208	−0.696048	174.748	−0.003983	0.9968	
dt_209	1.38251	174.748	0.007911	0.9937	

Mean dependent var	14.08869	S.D. dependent var	390.4398
Sum squared resid	2.82e+08	S.E. of regression	390.7435
LSDV R-squared	0.106013	Within R-squared	0.100552
LSDV F(222, 1845)	0.985530	P-value(F)	0.547144
Log-likelihood	−15158.31	Akaike criterion	30762.63
Schwarz criterion	32019.08	Hannan-Quinn	31223.19
rho	−0.006122	Durbin-Watson	2.012148

Joint test on named regressors -
 Test statistic: F(213, 1845) = 0.968351
 with p-value = P(F(213, 1845) > 0.968351) = 0.612455
Test for differing group intercepts -
 Null hypothesis: The groups have a common intercept
 Test statistic: F(9, 1845) = 1.35466
 with p-value = P(F(9, 1845) > 1.35466) = 0.203629