Relationship between Ownership Concentration and Dividend Policy in

Jordanian Capital Market

Submitted by

Khaled A. Alharahsheh

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Business Administration,

Concordia University - Chicago

River Forest, Illinois

Date (of the committee or Dean's signature)

CONCORDIA UNIVERSITY CHICAGO

RELATIONSHIP BETWEEN OWNERSHIP CONCENTRATION AND DIVIDEND

POLICY IN JORDANIAN CAPITAL MARKET

by

Khaled A. Alharahsheh

has been approved

12/11/2020

Roberto Castaneda, DBA, Dissertation Chair

Daniel T. Mays, DBA, Committee Member

Dana M. Sendziol, Ph.D. Committee Member

Abstract

The researcher investigated the relationship between ownership concentration and dividend policy in the Jordanian Capital market. To maintain consistency and minimize heteroscedasticity, the researcher used seven criteria to select the current study sample, which consisted of annual data of 37 corporations traded on the Amman Stock Exchange used during 2011-2017. Spearman's *rho* was used to test the research hypotheses related to the research's questions RQ1-RQ4. Simultaneously, the ability of the full adjustment model and the partial adjustment model to explain the differences in Jordanian corporation's dividend policy were tested, using the pooled fixed effects and random effects methods. A quantitative research design was used to accomplish the research objectives. The results of this research present a positive and statistically significant relationship between corporate earnings per share, institutional ownership, Free Cash Flow, firm's size, the Market to Book value ratio, and dividend payout ratio. Additionally, the results showed that the PAM was superior to the FAM in explaining the differences in Jordanian corporation's dividend policy.

Keywords: dividends, stockholder, owners' equity, institutional ownership, managerial ownership, partial adjustment model, full adjustment model

Dedication

In the memory of my father 'Ali.' My mother and my family. Your devoted belief in my abilities to succeed inspired, encouraged, and influenced me to never give up throughout this journey. My beloved wife Susan and son Rashed who meant and continue to mean so much to me; without your encouragement, sacrifice, and support, I would not have been able to finish this research and achieve this fantastic accomplishment. To my in-laws, thank you, and God bless you all. Finally, thanks to everyone who gave me a hand in achieving my thesis's outstanding work.

Acknowledgments

To the committee chair, Dr. Roberto Castaneda, your knowledge, guidance, and support were instrumental throughout this journey. To the committee member, Dr. Daniel T. Mays, your comments and help were critical and valuable in getting the dissertation done, mostly when I felt I was lost, and I thought I would not get this work performed. To the committee member, Dr. Dana M. Sendziol, your comments and help were critical and valuable in getting the dissertation done. I would also like to acknowledge the entire Concordia-Chicago University staff for their insights, guidance, and feedback during this thesis's writing and auditing. Without all of us working together, this doctoral research would not have been possible.

Table of Contents

List of Tables

List of Figure

Chapter 1: Introduction

In practice, when corporations make net profits through their business operations, they either distribute it as dividends to their stockholders or retain it. Leaders are responsible for formulating corporate policy (Azouzi & Jarboui, 2017; Gervais et al., 2011). From a strategic financial policy perspective, the dividend policy is considered one of the most critical financial decisions as investment policy, debit policy, and creating the optimal capital structure for the corporation (Brealey et al., 2012). A corporation's ability to accomplish strategic competitiveness and obtain above-average returns is at risk when strategic leaders neglect to respond appropriately and quickly to changes in the complex global competitive environment. Sharma (2007) demonstrated that great organizations begin with great leadership. This study adds to the existing body of knowledge in the field of strategic leadership by identifying those dynamics of agency theory (Schurina & Mustafina, 2018), which correlate to the influence of divided policy on the cost of capital and increase the corporation value. Furthermore, the agency problem can be minimized through the adoption of the corporate governance standard, (Brealey et al., 2012). Additionally, this research will help corporate leaders set strategic financial policy decisions, especially in consideration of the influence of ownership concentration on dividend policy. The researcher used a quantitative research method and a correlational design to test the relationship between ownership concentration and dividend policy. The researcher used the dividend payout ratio as a dependent variable, while the two independent variables consisted of institutional ownership and managerial ownership. Five additional variables included earning per share, free cash flow, future growth opportunity, firms' size, and leverage.

Background of the Problem

Corporations' stockholders may have no impact on the procedure of valuing equity. Investors should be neutral when it comes to either receiving dividends or the corporation

1

reinvesting dividends. The decision to distribute dividends is essential in formulating corporate financial policy (Reyna, 2017; Jabbouri, 2016). Studies on dividend policy have indicated a wide variety of features, including psychological or behavioral economic factors, tax-related issues, and asymmetric information.

Dividends distribution may impact the corporations' cost of capital in an adverse direction. Retained earnings will increase corporations stockholders' equity when deciding not to distribute cash dividends rather than debt. Financing future investments in the corporation through retained earnings can lower capital costs rather than issuing new stocks (Eshna, 2020).

The interpretation of actual dividend policy usually emphasizes transaction costs, information costs that lead to signaling and agency costs, taxes, and the legal system (Booth & Zhou, 2017). The Jordanian Capital Market size is considered to consist of a small, limited number of transactions and the number of traded stocks. Distributing dividends can make financing decisions through primary market costlier, thus increasing its dependence on internal profits. The researcher investigated the relationship between ownership concentration and dividend policy. The researcher used a quantitative method utilizing a correlational design to examine the relationship between the dividend policy and the independent variables used.

Problem Statement and Significance of the Study

The general business problem is that there is a general lack of knowledge regarding dividend distribution's influence on the cost of the corporation's capital resource choices, as noted in agency theory (Jensen and Meckling, 1976). The specific business problem is that the corporation's leaders within the Jordanian Capital Market lack specific knowledge of the relationship between ownership concentration and its dividend policy (Gonzalez et al., 2017). The researcher used the dividend payout ratio as a dependent variable. The independent

2

variables group includes institutional ownership and managerial ownership, while the additional variables group consists of the firm's size, free-cash-flow, future growth opportunities, and leverage.

Gonzalez et al. (2017) demonstrated that if the stock ownership is considered concentrated, then the large investor cannot extract their profits because of financial firms and institutional investors' observant act. Corporation's management may pay dividends to minimize the agency problem and establish a solid reputation, thus facilitating their ability to reach external financing resources (He et al., 2016).

In the Jordanian Capital Market, the investors still need legal protection and transparency. Furthermore, the limited ownership of the executive management for listed corporations increases the probability of agency conflicts. Jordanian corporations, however, have institutional ownership that might monitor the behavior of the corporation's management. Research on this specific business problem is significant as it indicates a valuable addition to the field of strategic leadership as it pertains to strategic corporate financial planning. The significance of this research is derived from the market properties itself, which is considered a developing market. The results of this research may assist policymakers and investors in understanding the dividend policy.

Additionally, this research may provide further evidence for future studies. Given this topic's importance, this research contributes a more detailed understanding of the relationship between institutional ownership, managerial ownership, and a corporation's dividends policy. As a result, improving the decision-making process can consequently influence the corporation's profitability

Theoretical Framework

The current research's theoretical framework was the agency theory initially examined by Jensen and Meckling (1976). Additionally, the researcher identified other relevant theories

3

for this study, including the irrelevance theory and clientele effects theory of Miller and Modigliani (1961), later known as M&M (1956), the Lintner dividend stability theory (1956), and the signaling theory.

As discussed in agency theory, a principal-agent association occurs when the stockholders (the principals) delegate responsibility to managers (known as agents) who are assumed to match their interests with the corporation's stockholders' interests. To mitigate the agency problem, the corporation's stockholders should motivate management to perform in the stockholders' interests by controlling mechanisms and compensation (Pepper & Gore, 2015).

The irrelevance theory developed by M&M (1956) points out that based on the optimal hypotheses of the capital market and under restrictive assumptions, dividend policy is irrelevant. As a result, any shifts in dividend payments should not have any influence on the corporation value. The theory further suggests that the corporation's value is not influenced by the manner of allocating the company's net income between dividend and retained earnings but by the profitability of new investment opportunities. As a result, corporations are indifferent between utilizing internal or external capital as a financing source (Friend & Phuket, 1964; Black & Scholes, 1974). In the real world, the capital market is an imperfect market, which makes illustrating dividend policy a challenge for scholars and economists.

The stability dividend theory was established by Lintner (1956) to address corporate dividend behavior. Lintner (1956) assumed that corporations have a target payout ratio through the stability dividend theory, and changes in earnings drive the dividend payout changes. Lintner (1956) developed the econometrics models, the full adjustment model, and the partial adjustment model.

The signaling theory states the relationship between the dividends and the stock price. Dividend signaling is a theory that assumes that a corporation's declaration of an increase in

dividend distributions is a signal of positive future forecasts. Bhattacharya (1979) pointed out that dividends perform as a signal of future cash flows. Additionally, the investors have perfect information regarding dividends and capital profit, as well as higher taxes on dividends than capital profits. Even though there are no tax advantages on dividends, the corporation will select to distribute dividends to send a positive signal to stockholders and external shareholders.

The clientele effects theory assumes that the investors have their own systematic preference to formulate their dividend portfolios dependent on tax and transaction cost occurrence (Ismail et al., 2018). Additionally, the clientele effects forecast the effect of types of investors on stock prices and dividends. Shareholders are commonly divided between institutional and individual shareholders, so that personal income taxes (influencing the latter) are more significant than what corporations pay (Allen & Michaely, 2001). Thus, dividends are significant variables since a high dividend usually offers greater risk.

Researcher's Positionality

In this study, the researcher used the quantitative method and correlational research design to examine the relationship between ownership concentration and divided policy. The researcher was an employee at the Jordanian capital market as a member and securities controller. The researcher's job experiences involved performing several tasks, including implementing the securities deposit operations of corporations' public shareholders. Additionally, the researcher worked as a trainer of the Jordanian Securities Depository Center system's users (Issuer, Custodian) from corporations and brokerage companies. However, the researcher did not possess specific knowledge of the relationship between ownership concentration and the corporation's dividend policy before conducting this study.

The identities of both the researcher and participant have the potential to affect the research process (Bourke, 2014). The researcher had no business association with the study

participants since the nature of the data used was historical panel data. Also, the researcher's goal was centered around performing academic and empirical research. The researcher maintained objectivity throughout the process of collecting accurate secondary data for each variable used in the study. Additionally, the researcher did not incur any conflict of interest in the study. Furthermore, the researcher presented the statistical result of each test of the models used to be consistent with stated theories. Lastly, the researcher presented a straightforward sample selection process to be usable in other studies that might be conducted in the future.

Purpose of the Study

The purpose of this quantitative correlation study was to examine the relationship between dividend policy as a dependent variable and ownership concentration using (institutional ownership and managerial ownership) as independent variables. The researcher used additional variables since they are related either to the dependent or independent variables. The additional variables include the earning per share, firms' size, free-cash-flow, future growth opportunities, and leverage. The researcher used a panel data set that was compiled between the period of 2011 to 2017. Panel data is sometimes called longitudinal data, that is data that include observing entities over time. Panel data may be either time-series or cross-sectional observations. The following groups, for instance, may be panel data series that include countries, firms, individuals, or demographic groups. In this study, the researcher used single equation model techniques (Baltagi, 2005). The data source used in the research was the audited published annual reports for publicly traded corporations in Jordan. The targeted population of the current research was the corporations listed on the Amman Stock Exchange.

The current study's purpose does align with the researcher's specialization, specific business problem, and methodology. The corporation leadership is responsible for setting the

policies related to the organization. The dividend policy is one of these policies that significantly determines the corporation value and capital cost. Additionally, the examination of dividend policy will enrich the corporations' leadership knowledge about dividend policy determinants. The researcher applied different quantitative models that empirically test the direction of the relationship between the ownership concentration and dividend policy. The researcher followed the scholars' methodology of Karathanassis and Chrysanthopoulou (2005) and Short et al. (2002).

Research Question(s) and Hypotheses

RQ1: Is there a relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t.i}$)?

H0: There is no relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t.i}$).

H1: There is a relationship between institutional ownership and (INST) and the corporation's dividend payout ratio ($D_{t.i}$).

RQ2: Is there a relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t.i}$)?

H0: There is no relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t.i}$).

H1: There is a relationship between managerial ownership and (INST) and the corporation's dividend payout ratio ($D_{t.i}$).

RQ3: Is there a relationship between the additional independent variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t.i}$)?

H0: There is no relationship between earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t,i}$).

H1: There is a relationship earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t,i}$).

RQ4: To what extent do the institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), explain the variance in the Jordanian corporations' dividends payout ratio ($D_{t,i}$)?

H0: The institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV) do not explain the variance in the Jordanian corporations' dividends payout ratio ($D_{t,i}$).

H1: The institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV) do explain the variance in the Jordanian corporations' dividends payout ratio ($D_{t,i}$)?

RQ5: Which of these models; the Full Adjustment model (FAM) and the Partial Adjustment model (PAM) able to best explain the behavior of Jordanian Corporations Dividends policy ($D_{t,i}$ - $D_{(t-1)i}$)?

H0: The ability of the Full Adjustment model (FAM), better than the Partial Adjustment to explain the behavior of Jordanian Corporations Dividends policy ($D_{t,i}$ - $D_{(t-1)i}$).

H1: The ability of the Partial Adjustment model (FAM), better than the Full Adjustment to explain the behavior of Jordanian Corporations Dividends policy ($D_{t,i}$ - $D_{(t-1)i}$).

The Rationale for Methodology and Design

The researcher utilized the quantitative research methodology to examine the variables. Quantitative research helps researchers provide possible explanations regarding the current situation and provides a snapshot of thoughts, feelings, or behaviors (Stangor, 2014). Additionally, quantitative research helps the researchers measure the data and generalize the finding from a selected sample of the desired populations of interest (Park & Park, 2016). Due to the nature of the data set, i.e., panel and historical data, it was imperative that the researcher utilized the quantitative research methodology.

The research design used is a correlational research design that comprises the measurement of two or more related factors and an evaluation of the relationship among those variables. The correlational design objective is to "uncover factors that express systematic relationships with each other" (Stangor, 2014, p. 16). The researcher used a correlation design due to the data set's nature, i.e., historical data. Furthermore, this type of study design permits researchers to examine variables to identify the degree of association that exists among variables (Trochim & Donnelly, 2008). To test the hypothesized relationships, the researcher ran Spearman's *rho* to examine the data used.

Operational Definitions for the Study

Capital market: Capital market is a financial market where long-term debt (over a year) or equity-backed securities are bought and sold either through the primary or secondary market (O'Sullivan et al.,2003).

Dividends: Dividends are a sum of declared surpluses for every ordinary share issued (Harada & Nguyen, 2009; Karathanassis & Chrysanthopoulou, 2005; Mehrani et al., 2011; Short et al., 2002).

Dividend distribution policy: Dividend distribution policy is a payout policy a corporation pursued in determining the size and the pattern of cash payout to stockholders (Baker et al., 2012; Jabbouri, 2016).

Dividend policy: Dividend policy is a function of institutional ownership, managerial ownership, earning per share, financial leverage, firm size, free cash flow (FCF), and future growth opportunity.

Earnings Per Share: Earnings per share defined as the profit available to the equity shareholders on a per share basis or the amount that shareholders can gain on every share held. Earnings per share were computed by dividing the profits available to the equity shareholders (net income) by the number of shares outstanding, Nichols & Wahlen, (2004), Ahmed & Javid, (2009); Al-Ajmi & Hussain, (2011); and Nnadi et al. (2013).

Financial leverage: Financial leverage is the long-term debt deflated by the book value of equity (Jensen & Meckling,1976; Jensen, 1986 and Stulz, 1990); Kouki, & Guizani, 2009).

Firm's size: The firm's size is the natural log of total assets (Beiner et al., 2006; Chiang & Chia, 2005).

Free cash flow (FCF): Free cash flow is the fund available to managers before discretionary capital investment decisions, which comprises net income, depreciation, and the interest expense of the corporation (Alli et al., 1993).

Future growth opportunity: Future growth opportunity is the ratio of market to book value of equity (MTBV) (Lang & Litzinberger, 1989; Gadhoum, 2000; Farinha, 2002).

Institutional ownership: Institutional ownership is defined as the percentage of equity (shares) owned by institutional investors (Short et al., 2002; Karathanassis & Chrysanthopoulou, 2005).

Managerial ownership: Managerial ownership is defined as the total percentage of shares owned by the shareholders to take part in the corporation's management, either one in the form of their natural existence or representation in the board of directors or through the way of performing managerial duties or through a combination of the two (Harada & Nguyen, 2009; Short et al., 2002; Karathanassis & Chrysanthopoulou, 2005).

Assumptions and Limitations

Assumptions are factors that are possibly influential and significant to the research for which the researcher has no hard data, might not ever know, and cannot or do not intend to control (Simon, 2011). Leedy and Ormrod (2010) demonstrated, "Assumptions are so basic that, without them, the research problem itself could not exist" (p. 62). The following are the factual assumptions on which the research is based:

1- The researcher assumes that all the required data is available and accurate

2- All the corporations' annual reports are following the international financial accounting standards

3- All the corporations have published annual reports during the study period.

Limitations are defined as prospective weaknesses of the research or circumstances that may impact the study's results or the way the investigator explains the findings (Bloomberg & Volpe, 2016). Potential limitations of this research contain the following points:

1- The period of the study

2- The geography area of the study

3- Only the publicly traded companies traded at Amman Stock Exchange were used

4- Other variables may influence the dividend policy other than those used in the current study (e.g., the effect of financial crises and the economic conditions in markets, taxes).

11

Summary and Organization of the Study

The general business problem is that there is a general lack of knowledge regarding dividend distribution's influence on the cost of the corporation's capital resource choices, as noted in agency theory (Jensen and Meckling, 1976). The specific business problem is that the corporation's leaders within the Jordanian Capital Market lack specific knowledge of the relationship between ownership concentration and its dividend policy (Gonzalez et al., 2017). The current research's theoretical framework was the principal-agent problem initially examined by Jensen and Meckling (1976), corroborated by Schurina and Mustafina (2018). Additionally, the researcher identified other theories that comprise the theoretical framework for the current study. These theories include Lintner's dividend stability theory (Lintner, 1956), irrelevance theory and clientele effects of Miller & Modigliani (1961), corporation governance catering theory (Baker and Wurgler, 2004), signaling theory (Bhattacharya, 1979), and agency costs theory (Jensen and Meckling,1976). Lintner (1956) wrote the dividend models (the full adjustment model and the partial adjustment model).

The researcher used a quantitative correlational research design to examine the relationship between ownership concentration and dividend policy. For this research, the researcher assumed that the study variables' required data were available and normally distributed. A significant potential limitation was the researcher's ability to generalize the analysis results on all corporations listed on the Amman Stock Exchange. In the literature review in Chapter 2, the researcher states the research's theoretical framework and previous studies on dividend policy and ownership concentration. The study population and sampling utilized are discussed in Chapter 3. The instrumentation, data collection, and analysis procedures for the current study that the researcher used to accomplish the current study's objectives are discussed in Chapter 3. In Chapter 4, the researcher presents the data results and data analysis in response to the study questions, which include RQ1: Is there a

relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t,i}$)? RQ2: Is there a relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t,i}$)? RQ3: Is there a relationship between the additional independent variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t,i}$)? RQ4: To what extent do the institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), predict the variance in the Jordanian corporations' dividends payout ratio ($D_{t,i}$)? RQ5: Which of these models; the Full Adjustment model (FAM) and the Partial Adjustment model (PAM) able to best explain the behavior of Jordanian Corporations Dividends policy ($D_{t,i}$ - $D_{(t-1)i}$)?. Chapter 5 presents the research purpose's fulfillment, implications for business practice and research, and the study recommendations and conclusion related to the existing body of knowledge on strategic leadership and innovation, agency theory, irrelevant theory, and the signaling theory.

Chapter 2

Literature Review

The purpose of this quantitative correlation study was to examine the relationship between dividend payout ratio ($D_{t.i}$) as a dependent variable and ownership concentration using (institutional ownership (INST) and managerial ownership (MAN)) as independent variables. The researcher used additional variables since they are related to the dependent variable or the independent variables. The additional independent variables include earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV)). The study's research questions are the following:

- RQ1: Is there a relationship between institutional ownership (INST) and the corporation's dividend pay-out ratio ($D_{t.i}$)?

- RQ2: Is there a relationship between managerial ownership (MAN) and the corporation's dividend pay-out ratio ($D_{t.i}$)?

- RQ3: Is there a relationship between the additional independent variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend pay-out ratio ($D_{t.i}$)?

- RQ4: To what extent do the institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), predict the variance in the Jordanian corporations' dividends pay-out ratio ($D_{t.i}$)?

- RQ5: Which of these models; the Full Adjustment model (FAM) and the Partial Adjustment model (PAM) able to best explain the behaviour of Jordanian Corporations Dividends policy ($D_{t.i}$ - $D_{(t-1)i}$)?

The following chapter introduces theoretical and empirical literature that involved examining the dividend policy to formulate the researcher's hypotheses to reach the research goals. The organization of The literature review is organized to first review the literature of the theoretical framework; then the strategy for identifying applicable researches to present a review of the seminal literature; and lastly, the core of dividend policy and summary is reviewed.

Strategy for Identifying Applicable Research

The researcher utilized the inquiry strategy to determine literature appropriate to the current research. The inquiry strategy involved searching published peer-reviewed articles on dividend policy determinants and the relationship between ownership concentration and dividend payout ratio. The reason to review the determinants of dividend policy and the relationship between ownership concentration and dividend payout ratio articles was to generate the research questions.

Through using the Concordia-Chicago library website, namely, the Klinck Memorial Library website, and utilizing the access ability to different research database (e.g., EBSCO and ProQuest), the researcher examined the published researches through searching the subject of the determinants of dividend policy and the relationship between ownership concentration and dividend payout ratio. The databases were explored for the research, articles, and books with the dividend policy, full adjustment model, partial adjustment model, institutional ownership, managerial ownership, ownership structure, and the Lintner model in the published articles and research title. The researcher made a critical evaluation for every research article that was available in full-text accessibility. The critical annotation evaluates the article for accurateness, significance, and quality.

Reputability and Extensiveness of the Literature Review

The foundations for the literature review include seminal, core, and practitioner empirical studies and books. Peer-reviewed research was extracted from utilizing the EBSCO database using the Academic Search Complete, Business Source Elite, and Master File Premier databases, by limiting the inquiry to scholarly (peer-reviewed) articles. The examiner exhausted all research capabilities by using the databases to locate all peer-reviewed articles on dividend policy, ownership concentrations, the determinant of dividend policy, and examining the Lintner models.

The following table shows the types and frequency of sources in the literature review used in the research.

Table 1

Types and Frequency of Sources in the Literature Review

Types of Sources	Frequency
Books	33
Journals	12
Peer-Reviewed Sources	234
Practitioner Articles	87
Scholarly Works	19
Total	385

The Literature of the Theoretical Framework

The current research's theoretical framework was the agency theory, which was initially examined by Jensen and Meckling (1976). Additionally, the researcher identified other relevant theories for this study, including the irrelevance theory, and clientele effects theory, which developed by Miller & Modigliani (1961), later known as M&M (1956), the

16

stability theory, which developed by Lintner (1956), the signaling theory (Bhattacharya, 1979). In the following, the researcher explains each theory in detail.

Agency Theory

Agency is described as an arrangement where one or more individuals (principal) employ another individual (agent) to achieve a specific task on their behalf, assigning certain decision-making rights to the agent (Jensen & Meckling, 1976). The dividend distribution policy is directed by the agency's interests of conflict between corporations' managers, large stockholders, and shareholders.

Jensen and Meckling (1976) and Fama and Jensen (1983) developed the corporation's contractual view assumptions. Rozeff (1982) pointed out that an optimal dividend distribution may reduce the agency and issue free cash flow costs. On the other hand, the source of the agency problem or costs comes from the separation of ownership and control. The management is the agent who determines the choices on behalf of the stockholders who provide the funds. Disagreement may occur when agent motivations are not associated with those of the shareholders. Also, Jensen and Meckling (1976) suggested that a prospective agency cost emerges when the directors hold less than 100% of the company's outstanding cash flow.

Stockholders require positive evaluation earnings on their stock holding. Management operates for the shareholders to achieve the goal of maximizing shareholders' worth. Nevertheless, executives who manage the corporation's assets, may choose to fulfill their private benefits other than those of the stakeholders, forcing expenses on shareholders, thus decreasing the corporation's value. Based on Jensen and Meckling's (1976) propositions, three aspects of agency costs create conflicts between shareholders and managers

Management entrenchment.

Jensen and Meckling (1976) demonstrated that when stockholders recognize that the

17

organization's management team is functioning effectively, investors will maintain the administration team to resume the supervision of the corporation's daily operation. Management is seen as overseeing the organization appropriately, where no conflict of interest is applicable.

When investors notice that management is not controlling the corporation accurately, stockholders may require a new management system that can influence the business in a manner that will maximize the corporations' value. A good management team is needed to increase the corporation's worth, control the corporation's assets, and prevent conflicts of interest between management and stockholders.

Managerial risk aversion.

Jensen and Meckling (1976) pointed out that managers and shareholders face various risk levels inside the corporations. Investors set a capital outflow into a firm; however, they will have capital outflow from other businesses in most circumstances. If shareholders have full-diversified portfolios, they will have a very slight risk in any one corporation.

The full-diversified portfolios protect the shareholder from an association's possible destructive operation with a minor effect on general wealth. Managers have a significant number of human and financial resources invested in the corporation. Therefore, executives suffer more than investors if the association's investments are unproductive, leading to conflicts between the management and stockholders in both investment and project choices.

Free Cash Flow.

The way in which publicly traded corporations' management manages their corporation's free cash flows (FCF) has been an aspect for several decades since it is hard to conclude whether the management or the directors work for their own benefit or for the stockholder's benefits. The latest financial scandals have increased the mistrust of management. This mistrust, in turn, might have boosted the need to decrease the amount of

18

FCF allowed to management's control (Roy, 2015).

Through reviewing the literature, FCF can be defined as cash flow produced by the corporation that is more than the amount needed to finance all presented positive net present value (NPV) plans (Jensen, 1986). Free cash flow can produce major conflicts of interest between managers and investors.

Consequently, there is an obligation to pay out money to stockholders as issuing dividends may reduce the agency costs. When executives have more cash flow than is required to finance all the company's existing valuable projects, they will be enticed to spend the extra cash on unsuccessful projects (Jensen, 1986).

Stulz (1990) described this cost as "the expected cost to the shareholders that arise because management invests cash flow in excess of that available to fund positive NPV projects in negative NPV projects" and also defines it as the over-investment expense of an administrative decision. Therefore, profitable companies are likely to face abnormal costs of free cash flow since the chance of owning excessive cash for spending more benefits or spending on less profitable projects will be high. These administrations are likely to have more debt to deduct the quantity of funds offered under a manager's authority.

Easterbrook (1984) pointed out that the utilization of both debt and dividends to minimize the free cash holds under management control because managers use free cash flow for their own advantage while it disregards those of investors, resulting in diminishing the corporation's value. Likewise, Easterbrook (1984) discussed that money control's accountability for stockholders' advantage would arise when management resorts to capital markets for new cash funds. For that reason, corporations will use dividends as a technique to encourage executives to invest or distribute it to stockholders. Easterbrook (1984) described that investors are confident that the corporations' cash is usefully consumed in the lack of

agency conflicts, so higher dividends do not seem to be important when monitoring the management.

<div align="center">**Lintner dividend stability theory**</div>

The fundamental field research investigating the relationship between earnings and dividend changes behavior is Lintner's (1956) stability theory. Lintner's (1956) assumed that corporations have a target payout ratio through the stability dividend theory, and changes in earnings drive the changes in the issuing dividend. Lintner (1956) demonstrated the significance of stability in dividends and the target payout ratio. Therefore, Lintner wrote the well-known econometrics models: the full adjustment model and the partial adjustment model.

After performing interviews with the employees of several large well established U.S corporations, Lintner pointed out the following: first, the most recent earnings and the past dividends paid are the primary determining factors of changes' in paying dividends; second, corporations' management concentrated on the change in the dividends rather than the amount of the dividends; third, changes in dividends were made only when corporations' management felt secure that the new rate of dividends could be sustained and companies very hesitantly decrease or eliminated dividends; fourth, there was a tendency to move to target payout ratio for the majority of corporations; however, the speed of adjustment to the level changed significantly between firms and fifth investment requirements commonly had a small impact on dividend behavior. Consequently, according to Lintner, a corporation's current dividend rate remains a significant benchmark to identify the current dividend. Linter's assumption suggests that issuing dividend is a function of the corporations' net current earnings after tax and the firms' dividend issued in the previous year.

Bodla et al. (2006) demonstrated that numerous individual investors rely on dividend income to fulfill a part of their living expenses. Consequently, corporations act in accordance

with the stable dividend policy. Over time, individual investors' expenses stay stable or rise gradually. Therefore, investors have a behavioral preference pattern in dividends. Constant changes in issuing dividends may lead to the selling of some stocks. In addition, institutional investors usually look to a stable dividend payment record as a highly attractive advantage. From the mentioned above, we can realize the significance of the stable issuing dividend. Accordingly, it is required from the company financial managers to formulate the firms' dividend policy carefully.

Irrelevant Dividend Theory

In contrast to Lintner's (1956) Dividend Stability Theory, Modigliani & Miller (1956) pointed out that dividend policy is irrelevant, signaling that any dividend policy shifts should not have any effect on the corporation value. The reason behind that is that a shareholder can duplicate any preferred stream of cash flow through purchasing and selling stocks. On the other hand, different assumptions made their irrelevance theory acceptable, containing: no personal or corporate taxes and no shares flotation or transaction costs. Both investors and managers have symmetric information about the corporation's future expectations, and the allocation of income between dividends and retained earnings does not influence the corporation's cost of equity.

The concept of irrelevancy of dividends posits that the corporation value is influenced by the profitability of new investment opportunities other than the way of classifying revenue among dividends and retained earnings. This theory makes both internal and external investments full substitute for each other. Therefore, corporations have an indifferent position between internal or external capital sources for financing purposes, allowing them to distribute income as dividends to general shareholders.

After Miller and Modigliani (1961), some studies have examined what happens when perfect capital markets are relaxed. For instance, Friend and Phuket (1964) and Black and

Scholes (1974) stated that the capital market is not perfect, making the explanation of dividend policy challenging for economists. To be clear, in this study, the researcher does not investigate the irrelevance of the dividends strand of theory. To summarize, since the investors and the corporation's managers have symmetric information about the corporation's future expectation, the researcher conducted this quantitative correlation study to examine the relationship between dividend policy as a dependent variable and ownership concentration using (institutional ownership and managerial ownership) as independent variables. The researcher used additional variables since they are related either to the dependent or independent variables. The additional variables include the earning per share, firms' size, free-cash-flow, future growth opportunities, and leverage.

The Signaling Dividend Theory

The signaling capacity of the dividends is a significantly discussed subject in the literature. The Signaling Theory explains the association between the dividends by the stock price. Bhattacharya (1979) pointed out that dividends perform as a signal of future cash flows. Even though there are no tax advantages on dividends, the corporation will select to distribute dividends to send a positive sign to stockholders and external shareholders. Bhattacharya (1979) supposed that investors have perfect information regarding dividends and capital profit, as well as higher taxes on dividends than capital profits.

The declared dividends report data about the corporation's possible future profits; they indirectly need not denote deliberate strategy by the company's administrators to share their opinions about future views. Their dividend declaration helps simply to offer the missing part of the sources constraint that the market needs to shape its current returns. In turn, this profit information then works as a base for assessing upcoming dividends. By this indirect method, profits can gain an essential "informational content." On the other hand,

22

Watts (1973) and Gonedes (1978) explained that dividends play a minor role when predicting future profits over and above what was included in recent and previous earnings.

Miller and Rock (1985) conducted a study entitled, "Dividend Policy Under Asymmetric Information." They developed the standard finance model of the corporation's decisions regarding dividends, investments, and financing through permitting the corporation's management to have more information than external investors regarding the actual situation of the corporation's current earnings.

Miller and Rock (1985) demonstrated that an informationally symmetrical signaling equilibrium occurs under asymmetric data. Furthermore, the trading of stocks that retrieve the time consistency of investment policy leads to reduced investment levels. The ideal attainable level under complete information and or no contractual trading provisions that alter the information or data asymmetry. Additionally, the potential to earn profits from it could remove both the time inconsistency and the inefficiency in creating investment policies. These contractual provisions also are probably comprised of dead-weight costs.

Raaballe and Bechmann (2002) provided a suggestion on dividend signaling theory. They found that firms with revenue levels below a particular crucial value prefer to repurchase their stocks while those with revenue above an edge level favor to propose cash dividends.

Hussainey and Al- Eisa (2009) examined the signaling theory through dividends by monitoring corporations, which recorded a drop after four years of growing revenues. The results show that 80% of the firms have increased the amount of issued dividends in decreasing earnings. So, these corporations deliberately attempted to capitalize on asymmetric information. Nevertheless, dividend changes do not have a significant sign for corporations with declining revenues, the way the growth of business transparency through published statements appears to be.

According to Dionne and Ouederni (2010), both dividends signaling concepts and risk management models are strongly connected with the informational asymmetry theory. The critical effect is that the hedge of future cash flows decreases dividends' sensitivity to future profits. As a result, risk management reduces informational asymmetries. Thus, management (always under the effect of the Agency problem) cannot manipulate dividends to signal to the investor base, as desired.

Liu and Chen (2015) re-examined the signaling assumption of dividends by testing if the managers adjust dividends to signal their anticipation of earnings' expectation through employing a simultaneous-equation method. The simultaneous-equation technique is considered appropriate to examine the earnings' expectations signaling hypothesis and enable the control of different factors that motivate executives to change the dividend payout ratio. In addition, they investigate the information content of dividend changing regarding future profit changes by using the same technique. They find the decision-maker adjusts dividend payments to signal equity-scaled instead of asset-scaled profit forecasts.

Furthermore, Liu and Chen (2015) provided evidence that management also amends dividend payments by signaling previous profit changes and serving dividend customers. Regarding the information content of dividend payment changes, their results show that dividend payment changes significantly and negatively affect the return on asset (ROA) changes. Additionally, when investors cannot determine the signaling function and realize the insignificant changes in dividend payment in forecasting future profits, the management would not use the changes to signal the profit forecasting since they cannot get the anticipated market advantages.

To sum up, dividends may offer incorrect or unclear signs to stockholders who can observe in their growth a positive signal associated with the current income (thus decreasing the information asymmetry) or link to an effort to reduce the accessible cash flow and

decrease the agency problems. Simultaneously, a dividend increase may have an adverse signal as the firm has no other growth prospects. A reduction in dividend size can also refer to decent plans in which the issuer desires to invest.

The Dividend Clientele Theory

The dividend clientele theory forecasts the effect of the type of investors on stock prices and dividends. Shareholders are commonly divided between institutional and personal shareholders so that individual income taxes (influencing the latter) are higher than what corporations pay. Thus, dividends are significant variables since a high dividend usually offers greater risk.

Modigliani and Miller (1961) demonstrated that dividends' preference relies on the age, wage, legal shape of an association (personal or institutional), and the extent of specific taxation. Given the type of investor principle, it can be concluded that each company has its certain stockholders depending on its dividend policy. Nevertheless, the procedure is more complicated and harder to analyze.

Additional studies followed Modigliani and Miller's (1961) controversy of the shareholders' effects, i.e., those stockholders who pay significant tax rates desire firms with minor dividends, while stockholders who pay lower tax rates favor issuers with high dividends. Shareholders with a minimal risk tolerance will not choose to invest in high-dividend- returning stocks, mainly if they are investors who then must pay a somewhat high individual income tax rate on this income. As a result, these kinds of dividends are more appealing to organizations like banks or mutual funds that can bear more risk.

Clientele theory assumes that investors have their own systematic preference to formulate their dividend portfolios dependent on tax and transaction cost occurrence. Based on that, corporations require to make the decision on their dividend distribution policy that may create or catch investors' attention to make their own investment decision in their

corporations, particularly in case of dividend tax laws switch from full charge system to a single-tier tax system (STT). STT is estimated to improve the straightforwardness and effectiveness of the tax management manner with the objective of increasing corporations to distribute dividends (Ismail et al., 2018).

The authors examined the corporation dividend distribution by concentrating on two examination periods; through the transitional period of STT and post the compulsory impacts of STT. Ismail et al. (2018) used a sample of 141 Malaysian publicly traded corporations among two of the biggest industries, resulting in 4,508 observations from 2012 to 2015. By dividing the data into a full sample and the payers, they examined the change in dividend distribution using a *t*-test of the difference.

Ismail et al. (2018) found that through the transitional period, the Malaysian publicly traded corporations were coherent with clientele theory in case both the fixed and special dividend had considerably been raised through a transitional time. Moreover, corporations with an excellent performance regarding return on equity had significantly increased its ordinary distribution of dividends. In contrast, moderate corporations had significantly raised extraordinary dividend distributions through the transitional period. On the contrary, the findings were insignificant within poor performance corporations. In addition, there is no significant difference in dividend distribution if the compulsory impacts of STT occur.

The Relation Between Corporate Governance And Strategic Leadership

According to Finkelstein et al. (2008), the definition of strategic leadership is the capability to predict, envision, maintain flexibility, and inspire others to generate the desired institutional changes. The success or failure of any institution relies on its leadership. Corporations bankrupt if the leadership fails to respond or to recognize threats, misjudges their capability to control the corporation's external environment, has no borderline between their interests and that of the corporation, has confidence that they can provide a response to

all the inquiries, removes all those who contradict with them, and underestimates difficulties and depends on what accomplished in the past.

Sharma (2007) argued that organizations collapse when leadership lacks the ability to endorse its vision to its followers and fails to persuade its followers why they should be enthusiastic and loyal to the institutional agenda. Sharma (2007) pointed out that to achieve and maintain better financial performance and gain investor's confidence, strategic leadership must steer the corporation toward outcomes that create strategic intent and strategic mission. Goffee and Jones (2006) noted that when leadership unleashes rather than represses the talents of the individuals it leads, this leads to a leaping volume in loyalty, productivity, creativity, and dedication towards the organizational vision and objectives.

Calder (2008) has pointed out that corporate governance has become essential for all organizations, either small or large, and is becoming a subject of vast public interest and concern. Kaplan and Norton (2006) argued that top leadership must be observed to apply acceptable corporate governance practices in the current competitive business environment. The most widely used definition of corporate governance is " the system by which corporations are managed and controlled" (Cadbury, 1992, p 15). The corporate governance concern with the publicly listed corporation practices. The four pillars of corporate governance are accountability, fairness, transparency, and independence (Cadbury, 1992). Cummings and Worley (2005) pointed out that the purpose of applying corporate governance is to bring about constructive and vital changes that are responsive to the long-term positive results of all stakeholders.

Shen and Gentry (2014) study the impact of strategic management on corporate governance. As the authors argued that, the literature broadly addresses the effects of various corporate governance methods on corporate strategic decisions. To provide a complete awareness of the correlation between strategic management and corporate governance, Shen

and Gentry (2014) create a cyclical model by adding corporation ownership structure to the relationship. Their model assumed that corporate strategic decisions could impact ownership structure; thus, it influences corporate governance methods and future strategic decisions. To explain their cyclical model, Shen and Gentry address the effect of strategic decisions on ownership structure and corporate governance in three contexts, publicly traded corporations, private corporations (including the initial public offering (IPO) decision), and the privatization of government-owned corporations. They demonstrate that a strong relationship between strategic management and corporate governance exists. Dominant parties, for instance, managers, owners, and governments, follow up their goals by consciously deliberately attempting to change or impact the corporations' ownership structure. In this view, it is clear that corporate governance and strategic management are related and influence each other.

Shanmuganathan (2018) investigated the relationship between corporate governance and strategic management while examining a corporation's performance. Shanmuganathan provided evidence on the relation between corporate governance and strategic management. Also, Shanmuganathan pointed out that corporate governance dominance over strategic management rather than leadership management over corporate governance.

The leadership contributes to enhancing the corporation's ability to be ambidextrous by getting new abilities to adapt to the unstable business environment and utilizing its available resources to attain efficiency. Abuzaid (2016) examined the effect of strategic leadership on the organizational ambidexterity through studying 94 Jordanian chemical manufacturing corporations operating at King Abdullah II Ibn Al-Hussein Industrial City. Abuzaid (2016) demonstrated that the strategic leader should have various skills that include visioning, focusing, and implementing. Consequently, the leader with these skills can make a positive impact on corporation creativity.

History of the Jordanian Capital Market

In the early 1930s, public shareholding corporations were founded in Jordan. The Jordanian public has been buying and selling stocks over-the-counter in the absence of an organized market. The necessity for a regulated market in Jordan came from the increased number of corporations and the issuances of public debt instruments by the government (JSC, "About JSC" 2020). In 1976 the Amman Financial Market (AFM) was instituted as a public institution with legal character and financial independence via the Amman Financial Market Law 1976 no. (31). Two years later, the AFM started its activities in January 1978 in the capital city of Jordan (Amman). The primary responsibilities of AFM were the regulatory, supervisory, and technical functions of the capital market.

In 1997, to establish a legal framework, Securities Law No. 23 was issued to restructure the Jordanian Capital Market (JSC, 2020). To separate regulatory tasks from the market's trading and technical activities by instituting three independent legal bodies, including the Jordan Securities Commission (JSC), the Amman Stock Exchange (ASE), and the Securities Depository Centre (SDC). The JSC is the legal and factual successor to the AFM (Repealed Securities Law No. 23 1997, art 23). The JSC is selected as the government regulator for the capital market and authorized to execute the regulatory and supervisory responsibilities. The SDC is assigned exclusively to perform registration, depositing, safe-keeping, transferring ownership of securities, and clearing and settlement of trading transactions in the capital market. The ASE is responsible for directing trading transactions in the capital market (JSC, 2020).

One of the vital aspects of the Securities Law No. 23 of 1997 is setting out instruments to improve transparency and disclosure in the capital market via regulating and monitoring disclosure declares. It allows the JSC to supervise and control disclosure in the initial public offer process to minimize informational asymmetry between shares issuers and

potential investors. Additionally, the JSC has implemented the International Financial Reporting Standards (IFRS) issued by the Committee of International Accounting Standards (IAS) and the International Auditing Standards issued by the International Federation of Accountants and requires the financial statements of the corporations to be prepared and audited in compliance with these standards ("Repealed Instructions of Disclosure" arts 24.A, 26, Jordan.

In 2002, the legislatures changed the Securities Law 1997 with the Securities Law 2002 No. 76. The 2002 Securities Law supported and reassured the independence of capital market organizations and their authorities, mainly the JSC's regulatory and supervisory responsibilities (Securities Law No, 76, Jordan 2002). The ASE was founded in 1997 according to the Securities Law 1997 as a non-profit organization,118 with financial and administrative independence, to handle trading activities in the Jordanian Capital Market under the JSC supervision (*Securities Law 1997 art 23*). The ASE commenced its activities and operations on March 11, 1999, in Amman. It began trading operations with 151 listed corporations and a market capitalization of JD 4137.7 (ASE Annual Report, 1999*).*

The following table shows the primary financial ratio in ASE and the number of listed companies 2010 -2017.

Table 2

The primary financial ratio in ASE and the number of listed companies 2010 -2017

Year	P/E ratio	Dividend Yield Ratio (%)	EPS (JD)	Number of Listed Companies
2010	26.345	2.725	0.116	227
2011	22.564	3.268	0.156	247
2012	15.575	4.591	0.15	243
2013	14.742	4.595	0.145	240
2014	15.307	4.179	0.162	236

2015	14.028	3.631	0.147	228
2016	16.55	4.142	0.122	224
2017	19.539	4.594	0.123	194

Source: ASE Annual Reports, 2019, p. 93; 2018, p. 82; 2014, p. 84.

Review of the Seminal Literature

The review of seminal work is an outstanding investigation that has substance within a subject. The seminal literature review section conveys the underlying knowledge foundation of the research variables and their measurement. For that reason, significant research concentrates on dividend policy and the determinants of decisions regarding paying dividends.

The history of distributing dividends refers to the Dutch East India Company (VOC), where 20% of the value of its share was distributed as dividends for almost 200 years from 1602 – 1800 to shareholders (Freedman, 2006; Chambers, 2006).

"The harder we look at the dividend picture, the more it seems like a puzzle with pieces that just do not fit together" (Black, 1976, p. 1). Based on the M&M assumption, there is indifference between corporations that pay money as dividends, and corporations that do not pay dividends and they have the same value.

From a tax perspective, Black (1976) pointed out that firms and investors prefer small amounts or no distribution of dividends since the profit generated is heavily taxed compared to the un-occurred one that generated and invested in a profitable investment project. Furthermore, Black pointed out that the transaction costs do not convey as much information regarding the reasons for distributing dividends by corporations.

Considering dividends as a source of capital, Black (1976) pointed out that since issuing new stocks usually costs a percent called the underwriting cost, corporations should cut the dividend distribution because there is no comparable cost related to cutting dividends.

In his answer to the question *Do investors demand dividends?,* Black (1976) indicated that firms should not eliminate all dividend distribution if the investor requests dividend distribution. Nevertheless, it is hard to say whether investors demand dividend distribution or not, so it is difficult for firms to eliminate dividend distribution or not.

Based on the irrelevant theory assumptions, M&M (1956) pointed out that based on the perfection hypotheses of the capital market, dividend policy is irrelevant to firm value. Meaning that any change either increases, decreases, or keeps the same level of distributing dividends and has no effect on the corporation value since stockholders can duplicate any preferred stream of cash flow through making the operation of purchasing and selling stocks.

Despite perfection hypotheses of the capital market, different assumptions made the irrelevance theory acceptable, containing (a) no personal or corporate taxes; (b) no shares flotation or transaction costs; (c) financial leverage has no influence on the cost of capital; (d) both investors and managers have symmetric information about the corporation's future expectation; and (e) allocation of income between dividends and retained earnings has no influence on the corporation's cost of equity.

Friend and Phuket (1964) and Black and Scholes (1974) supported the irrelevancy suggestion. It assumes that the value is not influenced by the manner of allocating income between dividend and retained earnings, but by the profitability of new investment opportunity. This suggestion formulates internal and external capitals as perfect subtitles for each other. Consequently, corporations are indifferent between utilizing internal or external capital for financing, making them capable of dispensing income as dividends to shareholders. Therefore, Friend and Phuket (1964) and Black and Scholes (1974 do not support the dividends premise's irrelevance.

Another leading theory conducted on corporate dividend behavior is Lintner (1956) through the Stability Dividend Theory. Lintner's (1956) model assumed that corporations have a target payout ratio, and any changes in earnings lead to changes in the payout.

Frankfurter and Wood (2002) suggested that dividend payment is an "Unwritten contract between shareholders and corporate management" (p. 128). Rozeff (1982) examined Jensen and Meckling (1976) agency theory by creating a model of optimal dividend distribution in which increasing dividends lead to lower agency costs but increased transaction expenses. The ideal dividend payout decreases these two expenses. Rozeff used two independent variables as proxies for agency cost; the percent of shares held by insiders and the natural logarithm of the total assets, which is the firm's size. Using a sample of 1000 U.S. firms between 1974 and 1980, the researcher shows that dividend payout is adversely linked to the percentage of shares held by insiders.

In an additional study, Jensen et al. (1992) tested the insider ownership and dividend policy using information from U.S. firms for 1982 and 1987. Their findings specify that insider ownership has a negative influence on dividend policy. Their findings support Rozeff's (1982) suggestion that dividends profits of companies which have higher insider ownership have reduced the impact of decreasing agency cost.

On the other hand, a new indication for Rozeff's findings (1982) resulted based on a study by Alli et al. (1993) that examined the alternate explanation of corporate dividend payout ratio by employing a sample of 150 corporations listed in NYSE. Their findings confirm the positive relationship between institutional and insider ownership and dividend, which is used to alleviate the agency problem.

De Angelo & De Angelo (1990) conducted research using 80 dividend-distributed companies registered in the NYSE. De Angelo and De Angelo concluded that many firms with debt repayment complications tend to decline dividend payment. However, not to

33

exclude dividend payments completely because limiting dividends may lead to negative indication to the outside, building negative market response, therefore decreasing the stock value.

Eckbo and Verma (1994) tested 308 companies listed in the TSE during the period 1976 -1988 to hypothesize that observed dividends determine the discrepancy between managerial share ownership, voting power, and cash dividend policy by agreement across diverse shareholder groups. Eckbo and Verma improve and examine this consensus-dividend theory using Canadian corporations where management prefers to own a more significant amount of voting shares. Eckbo and Verma's empirical results show that cash dividends decline as owner-managers' voting control rises and is usually near zero when owner-managers have the company's full voting power. Panel data assessment and factor-analytic procedures provide additional empirical support for the consensus-dividend model.

Shleifer and Vishny (1997) explored the agency conflict from the standpoint of the separation of management and finance. Managers gather funds for various reasons. One of the purposes was productive use or cash out their holding in the firm. On the other hand, stockholders require a profit as a sanction for their financing, raising the agency problem (Shleifer & Vishny, 1997). Consequently, one of the agency theory's critical principles is the managers' and agents' conflict. The basics of a good corporate governance structure are the legal protection of stockholders and concentrated ownership, so large stockholders seem to be required to push the management to issue dividends (Shleifer & Vishny, 1997).

The standard dividend irrelevance concept indicates that investors consistently endorse the company's dividend policy. On the other hand, management profits from free cash flow, mixed individual tax rates, and data asymmetries contribute to internal shareholder conflicts over dividend judgment.

Institutional stock ownership can decrease agency costs by supervising corporations. Based on a study by Shleifer and Vishny (1986), ownership concentration creates motivations for large investors to examine the company's management. Consequently, it controls the free-rider issue related to spreading ownership, while small investors do not have enough motivation to endure monitoring expenses for other stockholders' advantage. Because of investors' active monitoring, executives are better allied towards the goal of providing investor value. Furthermore, institutional shareholders notice that it is gradually challenging to sell large stock shares without depressing stock values. So, many shareholders prefer to efficiently observe a manager's performance to raise stock performance rather than selling their shares at a loss. Subsequently, institutional stockholders are actively acting to influence corporate strategy resolutions. The relation between ownership and dividend may be positive or negative.

In the opposite view, stockholders will expect that the corporation's cash flow is efficiently used. The efficient use of cash flow can occur in well-organized businesses where there is no agency clash between shareholders and managers.

Short et al. (2002) analyzed the possible link between ownership structure and dividend policy by employing a UK panel data set between 1988 and 1992 for 211 companies registered on the London Stock Exchange. By applying dividend models of Lintnre (1956), Waud (1966), and Fama and Babiak (1968), Short et al. (2002) inferred that a positive relationship between dividend payout policy and organizational ownership might go past growing the dividend payout ratio. Moreover, there is some verification supporting a negative relationship between dividend payout policy and institutional ownership.

Andres et al. (2013) tested Lintner's (1956) model for dividends and total payouts. They reported inconsistencies with the assumption where dividends and repurchases are ideal substitutes. In addition, they reported inconsistencies with the expectation that tax

35

considerations are the main factor affecting dividend distribution decisions. Their research findings verified the flexibility assumptions that forecast dividends are utilized to pay permanent and repurchases transitory earnings. Mehrani et al. (2011), Harada and Nguyen (2009), Karathanassis and Chrysanthopoulou (2005), and Short et al. (2002) measured the dividend as a sum of declared dividends for every ordinary share issued.

Review of the Seminal Literature of Independent Variables of this Study

Institutional Ownership

Institutional ownership refers to the percentage of stocks owned by institutional investors. Institutional block holders' role is important where it can be considered a monitoring mechanism that controls the corporation's executives or directors' activities. Shleifer and Vishny (1986) and Allen and Michaely (2001) report that large institutional investors are more capable of monitoring or control corporate management than the minor and more dispersed shareholders.

By comparing the corporation's ownership structure to US and UK corporations, it is beneficial to mention that the legal system allows the institutional investors to build a stack in individual corporations (Roe, 1990). The value of dividends paid by UK corporations is relatively higher than those paid by other countries' corporations, such as Japan and Germany (Mayer & Alexander, 1990; Mayer, 1994).

Short et al. (2002) conducted a study to test the potential relationship between institutional ownership and dividend policy. Through using a panel data set for a sample during the period between 1988 to 1992 of UKs' corporations listed at London Stock Exchange information, they employed the dividends models stated by Lintner (1956), Waud (1996), and Fama and Babiak (1968) to accomplish the goal of their study. The dividend policy models have tested under the hypothesis that a positive relationship between institutional ownership and dividend policy exists.

36

Karathanassis and Chrysanthopoulou (2005) followed the same methodology used by Short et al. (2002) to conduct a study to investigate the relationship between ownership structure and a firm's dividend policy. Using a sample of 55 Greek corporations, Karathanassis and Chrysanthopoulou (2005) concluded that the results are consistent with the efficient monitoring hypothesis. Karathanassis and Chrysanthopoulou (2005) stated that institutional investors' existence has two different signals that may serve from the signaling theory hypothesis. Firstly, it may send a positive corporate profitability signal since the institutional investors hold the profit-generating shares. Secondly, institutional investors like return as a capital gain rather than dividends.

Through studying the emerging market (e.g., Jordanian capital market), Al-Najjar (2011) conducted a study to examine the relationship between capital structure and dividend policy. To investigate the common determinant of dividend policy and capital structure, Al-Najjar (2011) used the reduced form equation for both single and structured equations. He used four different theories to achieve his study goals: agency theory, signaling theory, pecking order theory, and bankruptcy theory. Al-Najjar reported that the factors that play important roles in determining the capital structure and dividend policy are the same as the ones for developed markets.

From the agency theory perspective, institution ownership is considered one of the variables determining the corporation dividend's policy. Al-Najjar (2011) used the negative relationship between institutional ownership and dividend policy hypothesis. For the purposes of the study, the researcher used Short et al.'s (2002) definition of institutional ownership, which refers to the percentage of stocks held by foreign and domestic institutional investors, mutual funds, and investment trusts owning five percent (5%) or more of equity for the period from 2011-2017. The empirical method utilized a dummy variable (INST). The

value takes one when the percentage of shares owned by institutional investors is more than the sample's mean percentage and equals 0 otherwise.

By reviewing the previous studies of Moh'd et al. (1995), Han et al. (1999), Manos (2002), Abedelsalam et al. (2008), and Kouki and Guizani (2009), a positive relationship between dividend payout ratio and the percentage shares owned by institutional investors is found. Hence, for institutional controlled corporations, a high dividend payout is expected. As a result, the researcher hypothesizes a positive relationship between institutional share ownership and corporation dividend payout ratio.

Managerial ownership.

Jensen and Meckling (1976) argued that when corporations' management works efficiently, stockholders and investors will maintain the management team to resume the supervision of the corporation's daily operation. When investors notice that the corporations' management is not controlling and managing the corporation effectively, shareholders may require new management that can control the corporate operations in a way that will maximize its value. A professional and good management crew is essential to maximize the corporation's value, control the assets, and prevent conflicts of interest between management and stockholders.

The managerial entrenchment assumed that when corporation's managers hold a small amount of equity and the shareholders are characterized as dispersed then they act anti-non-value maximization performance. Therefore, insider shareowners may utilize company assets to generate personal interest, for instance, shirking and premium consumption (Jensen & Meckling, 1976). Demsetz (1983) and Fama & Jensen (1983) proposed that managers hold a large stack of a corporation's shares to secure their positions, considered adequate to have voting power.

Short et al. (2002) tested the prospective relationship between managerial ownership

38

and dividend policy through using the full adjustment model (FAM), partial adjustment model (PAM), and Waud Model (WM). Short et al. (2002) reported a negative relationship between the two variables. Farinha (2003) conducted an empirical study to investigate the dividend policy, corporate governance, and managerial entrenchment hypothesis using a cross-sectional payment of dividend payout ratio in the UK. Farinha (2003) examined a large sample of more than 600 corporations for five years during 1987-1991 and 1992-1996. He found that insider ownership influenced the dividend payout ratio coherently with managerial entrenchment hypotheses (Farinha, 2003).

Harada & Nguyen (2009), Short et al. (2002), and Karathanassis & Chrysanthopoulou (2005) defined managerial ownership as the total percentage of shares owned by the shareholders where they take part in the corporation's management, either in the form of natural existence or representation in the board of directors or performing managerial duties or through a combination of the two. Sakir & Fadli (2014) investigated how the managerial ownership, debt policy, profitability, corporation size, and free cash flow (FCF) might affect the dividend payment policy on manufacturing corporations' industries and analyze the significant variables affect dividend payout policy. Through utilizing a sample of eight Indonesian corporations, Sakir & Fadli (2014) run a multiple linear regression analysis. They report a significant negative effect of managerial ownership on the dividend payout policy.

Manos (2002), Short et al. (2002), and Harada and Nguyen (2009) demonstrated a significant negative relationship between dividend payout ratio and percentage shares owned by the shareholders who take part in the corporation's management. Consequently, the researcher hypothesizes a negative relationship between managerial ownership and dividend policy.

Review Of The Seminal Literature For The Additional Variables

This section involves reviewing the seminal literature of the additional variables used in the research involving earnings per share, firm size, market to book value ratio, and leverage and free cash flow.

Earnings Per Share

The fundamental study investigated the relationship between earnings and dividend changes behavior. Lintner's (1956) stability theory assumed that corporations have a target payout ratio, and changes in earnings drive the issuing dividend changes. Corporations require maintaining efficient earnings management. At the same time, the corporation management is required to recognize the impact of the corporations' policies, thus that they can make the corporation's optimal potential decisions (Lev, 1989). An increase in the corporation's earnings leads to increased corporation value, while a drop in earnings leads to a decrease in corporation value.

The profit available to the equity shareholders on a per share basis, known as earning per share, or the amount that shareholders can gain on every share held. Earnings per share were measured by dividing the profits available to the equity shareholders (net income) by the number of shares outstanding. Earnings reflect a measure of the change or shift in the corporation's value to common shareholders through a period (Nichols & Wahlen, 2004). The correlation between earning per share and dividend per share is not a straight-line correlation as the percentage of earnings issued to the stockholders as paid dividends is not definite and fixed. Ahmed & Javid (2009), Al-Ajmi & Hussain (2011), and Nnadi et al. (2013) pointed out evidence that there is a positive relationship between issuing dividends and earnings per share.

Munyua (2014) demonstrated that issuing dividends is a significant variable for successful goal attainment to meet the shareholder's needs in any corporation. Additionally,

he pointed out that shareholders make investments in equity capital with anticipations of making profits in the form of dividends paid and capital gains. Consequently, corporations should create a good balance among dividends and retained earnings. Baker & Powell (2000) argued that the good financial performance of a corporation leads to the issue of high dividends distributed to shareholders.

By utilizing Lintner's (1956) model, Skinner (2006) investigated the developing association between earnings, dividends, and share repurchases over time and pointed out that the correlation weakened after 1980, which is credited to the declining management willingness to issue increased dividends. Additionally, Skinner (2006) demonstrated that the correlation between earnings and payout dividend was robust for the corporations that pay dividends and perform stocks repurchases. Which support that such corporations are now more expected to utilize repurchases to payout earnings increases; therefore, clarifying the increasing reluctance to increase dividends. In addition, Skinner (2006) pointed out that the strength of the correlation increased among earnings and payouts when the dividends and share repurchase were combined.

Musa (2009) tested the relationship between corporations' dividend policy and current earnings and pointed out that earnings had a significant positive effect on corporations' dividend policy. The results on the impact of earnings on issuing dividends supported the results of Fama & French (2001), who identified that different variables influence the corporation's issuing dividend, including, amongst others, earnings per share, investment opportunities, and firm's size.

Firm size

Corporations characterized as big size may have more financial and non-financial resources than the small ones, and accordingly, the potential to perform socially responsible

activities. Consequently, they might have the ability or the opportunity to attain economic efficiency status.

The possible effect of firm size on the corporation's performance is expected to be unclear by reviewing the literature on the potential relationship between dividend policy and firms' size. As Scott and Martin (1975) reported, the firm size is considered one of the crucial variables influencing the corporations' debt policy and dividend policy. In addition, Smith & Watts (1992) documented that corporations with more total assets can have higher dividend payout ratios.

From the signaling theory perspective, Gadhoum (2000) proposed that the signaling efficiency of dividends declines for the large corporations because larger corporations produce more information than smaller ones. Hence, firm size involvement may be preferable with respect to a simple control variable without an expected sign.

Ramachandran and Packkirisamy (2010) conducted a study to investigate the effect of firm size on dividend behavior. Through utilizing a panel data of 73 industrial firms during the period 1996-2007, they ran a multiple regression analysis and found that the firm size has a significant effect on the dividend payout ratio.

Following the methodology used by Beiner et al. (2006), the researcher used the natural log of total assets as a proxy for the firm size. Consequently, the researcher expected a positive or negative relationship between dividend policy and firm size.

Free cash flow (FCF)

In order to minimize the agency costs of the free cash flow of investment projects that have positive net present value (NPV), Jensen (1986) demonstrated that when firms have cash that exceeds investment financing needs, they should distribute dividends to minimize managerial discretionary funds.

42

Rozeff (1982) conducted a study to examine the determinants of dividend distribution through using a sample of 1000 across 64 industries from 1-13 edition of the Value Line Investment Survey of Jun 5, 1981. Three variables used may determine the dividend distribution, which includes beta, growth, and agency cost. Additionally, to explain the cross variation in dividends' payout ratio, a multiple regression ran to determine the optimal dividend payout ratio. Rozeff reported three factors that may affect the dividend payout ratio: the corporation's fund requirements for investment purposes, debt financing, and agency costs. Rozeff concluded that the corporation's investment policy affects its dividend policy. In addition, Jensen et al. (1992), and Mollah et al. (2000), provided further evidence that supports the free cash flow hypothesis.

Crutchley and Hassen (1987) conducted a study using emerging market data to examine agency costs' effect on dividend policy. Using data from corporations listed on the Dhaka Stock Exchange, a sample of 153 non-financial corporations from 1988 to 1997 were used to run Ordinary Least Squares (OLS) analysis. Crutchley and Hassen found a non-significant statistical relationship between free cash flow and dividend policy. Hence, a positive relationship between free-cash-flow and dividend payout ratio is expected. The development of the free-cash-flow measurement has developed from Crutchley and Hassen's (1987) research that considered dividend policy as a part of managerial decision-making.

Furthermore, Alli et al. (1993) pointed out that paying dividends is influenced by cash flow, which signals the corporation's ability to pay dividends. Alli et al. described FCF as the fund available to managers before discretionary capital investment decisions. The FCF comprises net income, depreciation, and the interest expense of the corporation. Needed capital expenditure is subtracted from these cash flows to account for investment in positive net present value projects.

By utilizing data for corporations listed on the CHINESE Stock Market during 2003-2011, Cheng et al. (2014) pointed out further evidence of cross-listed corporations' dividend distribution behavior. Cheng et al. found that the variable free cash flow has a vital role in dividend payment among the cross-listed corporations. Consequently, the researcher hypothesized a positive relationship between dividend policy and free cash flow.

Future growth opportunities (MTBV)

Not enough cash available to be paid as dividends can negatively affect dividends and growth opportunities. The sales growth and the market-to-book value ratio are utilized to predict investment opportunities. Nevertheless, the influence of growth opportunities on the prospect of dividend distribution has been inconsistent. Allen and Michaely's (2001) findings and other scholars (e.g., Jensen et al., 1992; Rozeff, 1982) pointed out that corporations with a high level of information asymmetry and high available growth opportunities should not distribute dividends. Conversely, low-growth corporations may distribute relatively high dividends in the case of limited opportunities for profitable project investments (Alli et al., 1993).

Rozeff (1982) and Amidu and Abor (2006) pointed out that the expected relationship between the projected growth and the dividend payout ratio is negative. The reason behind the negative relationship is that corporations would rather avoid transaction costs of external financing sources, consequently holding a more significant percentage of cash for financing purposes if they have prospective growth opportunities.

Kouki and Guizani (2009) assumed a negative relationship between dividend payout ratio and future growth opportunity because corporations tend to avoid transaction costs due to external financing activities. If the corporations have growth opportunities, they retain a larger percentage of cash as retained earnings.

Lang and Litzinberger (1989), Gahoum (2000), and Farinha's (2002) future growth opportunities are measured as the ratio of market to book value of equity (MTBV). Consequently, the researcher hypothesizes a negative relationship between dividend payout ratio and future growth opportunity.

Leverage (LEV)

Following Jensen and Meckling (1976), Jensen (1986), and Stulz (1990), the corporation's financial leverage has a vital function in scrutinizing managers' behavior through minimizing the agency cost of conflict between the shareholders and managers, subsequently increasing value. Jensen (1986) demonstrated that debt utilization could decrease the dividend to relieve agency conflicts among shareholders and managers. Therefore, the agency theory of free cash flow proposed a negative relationship between debt and dividend. Additionally, some debt contracts contain shielding covenants, limiting the payout.

Based on Pecking Order Theory assumptions, corporations prefer to finance their investment projects with their retained earnings (Myers & Majluf, 1984). If corporations distribute a significant amount of funds as dividends consequently, this will diminish the amount of free cash flow, which will force the corporations to raise funds from external financing sources to maintain the required optimal capital structure. Myers and Frank (2004) pointed out a positive relationship between dividend policy and leverage. It may be utilized as a medium to enhance the corporation's ability to access the capital market by sending a strong positive signal to investors and maintaining the corporation's value.

Kouki and Guizani (2009) conducted a study to examine the effect of stockholder ownership identity on Tunisian corporations' dividend policy using panel data over 1995-2001. In contrast to the study by Myers and Frank (2004), Kouki and Guizani (2009) assumed a negative relationship between dividend payout ratio and leverage.

45

Vo and Nguyen (2014) conducted a study to investigate the association between managerial ownership, leverage, and dividend policy. Vo and Nguyen (2014) utilized a sample of 81 corporations listed on HCM's stock exchange over the period 2007-2012. Vo and Nguyen concluded a negative relationship between dividend policy and leverage, which further supported the Pecking Order Theory.

Using emerging market data, Manneh and Naser (2015) conducted a study using non-financial corporations' data during 2010-2012, listed on the Abu Dhabi Securities Exchange. Manneh and Naser examined the association between dividend policy and firm profitability, risk, free cash flow, firm size, majority stockholders, and industry. They hypothesized that there is a relationship between dividend policy and future growth opportunity. The study's results reported a statistically negative relationship between dividend policy and the level of leverage.

Kouki and Guizani's (2009) defined financial leverage as the long-term debt deflated by the book value of equity. The research expected a negative relationship between financial leverage and dividend payout.

Review of the Core Literature

This section explains vital core studies that have been performed in the environment of both developed and developing marketplaces to examine the link between ownership concentration and dividend policy.

Khan & Shamim (2017) conducted a study to analyze the sector-wise dividend payment behavior by taking secondary data of corporations listed on the Karachi Stock Exchange (KSE) from 2009 through 2013. They performed a sector-wise examination of the behavior dividends payment in 32 sectors and determined the relationship between various dividend payment factors of 15 non-financial sectors. To accomplish their study goals, they used the dividend per share as a dependent variable. The researcher used independent

46

variables: growth sales, earnings per share, leverage, free cash flow, and return on equity ratio. To examine the relationship between the dependent and independent variables, they used the pooled ordinary least square method.

Khan & Shamim (2017) pointed out that a positive relationship exists between dividend payment, earning per share, free cash flow, growth sales, and return on equity ratio. They recommended that the corporations should emphasize on its internal policies as all variables that are elements of the study correlate to the internal financial strength of the corporation, and most of them are noticed to be effective or effective-less. Additionally, they recommended that corporate managers consider external variables when making decisions regarding dividend policy.

Boţoc and Pirtea (2014) analyzed the fundamental variables that drive corporations' dividend payment policy from emerging countries by observing liquidity and cash. Their study tested whether firms from emerging nations have a dividend payout-policy method parallel to that of firms from developed countries. A sample of 2,636 corporations from 16 countries was used during the period of 2003-2011. The dividend-to-assets ratio was applied to examine the dividend payout ratio (DPR). Boţoc and Pirtea's findings advocated that the residual cash flow model of dividend as a cash organization and liquidity impacts dividend payments. Mainly, when stockholder protection is rising, cash demand is more significant in describing dividend payment, and when stockholder protection is low, liquidity seems to be more significant.

Boţoc and Pirtea (2014) also concluded that higher dividend payouts are anticipated in nations with weak shareholder protection for the tenacity of building a decent reputation. Results indicate that the business cycle shows to be insignificant in clarifying the dividend payout, in contrast with the life-cycle model of dividends. In general, corporations from

emerging nations exhibit dividend payout patterns relatively like companies from developed countries.

Furthermore, Boţoc and Pirtea (2014) pointed out a unique pattern for China compared to corporations from other nations. For Chinese firms, only liquidity had an impact on dividend payment. Potential clarifications for such findings are China's public firms' ownership structure, governance systems, and certain laws.

Lu et al. (2014), using data collected from the Chinese Stock Market during the period 2004-2009, investigated the significant impact of dividends offering and its importance on dividend policy and investment decision-making process. Lu et al. (2014) examined the significance of distributing cash dividends on corporations' operation status, the income level of shares, and if the irrational preference of dividend payout in cash form diminishes the development and enhancement of the securities market.

Lu et al. (2014) built three portfolios containing stock dividend, cash dividend, and non-dividend data. They employed the least significant difference approach, co-integration technique, Sharpe index technique, and error correction technique and examined the profits from three different portfolios that had been created. The study results showed a significant impact of dividend offerings in the Chinese Stock Market. The income level of the cash dividend portfolio is considerably less than the income level of the stock dividend portfolio and non-dividend portfolio. Also, the listed corporations issuing stocks as a dividend have good investment value. They concluded that the earnings growth is insignificant to determine the dividend payment policy of listed corporations. In contrast, the listed corporations with sustainable development opportunities have stock dividend option distributions considered the neutral option.

Lin et al. (2018) investigated the relationship between information asymmetry and dividend payout policy and how asymmetric information impact catering behavior. Lin et al.

48

employed forecast error and forecast dispersion as proxies of information asymmetry factors. The more information asymmetry the corporations' experience, the less probable they will pay more dividends (Lin et al., 2018). In the meantime, the impacts of information asymmetry prevail along those of offering motivations for management to decide on dividend payout policy. Finally, the empirical findings show that the signaling theory retains when the dividend yield is extraordinary (high), or the market undervalues the companies' earnings per share (EPS). Furthermore, corporations utilize stock repurchase options to boost dividends and consider retained earnings when making dividend policy decisions.

Liu and Chen (2015) re-examined the signaling assumption of dividends by testing if the managers adjust dividend payment to signal their anticipation of earnings expectation through employing a simultaneous-equation method. The simultaneous-equation technique is considered appropriate to examine the earnings expectations signaling hypothesis. The use of simultaneous-equation technique enables the control of different factors that motivate executives to change the dividend payout ratio. In addition, using the same technique, they investigated the information content of dividend changing regarding future profit changes.

Liu and Chen (2015) found that decision-makers adjust dividend payments to signal equity-scaled instead of asset-scaled profit forecasts. Furthermore, Liu and Chen provided further evidence that management also amends dividend payments to signal previous profit changes and serve dividend customers. Regarding the information content of dividend payment changes, Liu & Chen's (2015) results show that dividend payment changes significantly and negatively affect the return on asset (ROA) changes. Moreover, the results conclude that if investors cannot determine the signaling function and realize that dividend payments increase or decrease not crucial in forecasting favorable or unfavorable future profits. Additionally, management might despair utilizing dividend payment changes to

signal their corporations' profit forecasting since they can no longer get the anticipated market advantages.

From the signaling theory perspective, Trabelsi et al. (2019) conducted a study to investigate Baker and Wurgler (2004) catering theory in France. Since the French market is characterized as one with a high concentration of capital, their study was considered an endeavor to highlight the family control role in determining the managerial propensity to fulfill non-informative dividend distribution demands.

Trabelsi et al. (2019) used large data of French corporations involved in the SBF-250 index from 1992 through 2010. To accomplish the research objectives, they employed different measurements of the dividend payout policy. The measures they used involved the premium of dividend, percentage of dividend-distribution corporations, and the possibility of distributing dividends. The empirical results presented that the dividend distributor rate increases with the dividend premium and a negative relationship between the dividend premium and French households' confidence index. The results indicate the sensitivity or responsiveness of dividend payout demand for investor behavior. Furthermore, multivariate panel regression analysis findings present a statistically significant positive impact of the dividend premium on the corporation's propensity to dividend distribution.

To test the assumption of corporate governance theory, Pahi and Yadav (2018) examined the relationship among the structure of corporate governance and dividend distribution policy through utilizing independent directors' members and the size of the board of directors proxy factors for corporate governance. In addition, Pahi and Yadav (2018) used firm-level control factors (e.g., firm or corporation size, beta, profitability, and liquidity) to control some corporation characteristics.

Pahi and Yadav used data for 360 Indian non-financial and non-utility corporations comprised of the BSE 500 index over the period 2012-2016. Using Tobit and Logit models,

50

Pahi and Yadav's research results stated that non-executive director members are significantly and negatively correlated in determining the dividend payout ratio. The size of the board of directors was significantly and positively influencing the dividend payout ratio.

Furthermore, they pointed out that other control factors utilized in the research and had the estimated and desired effect on the dividend distribution in both Tobit and Logit models. Generally, they stated that dividend distribution might be an alternative for corporate governance of a mechanism for controlling the agency problem.

Roy (2015) conducted research considering the legal protection of shareholders to test whether the 2002 legal reaction to company financial reporting scandals that came in the shape of different new initiatives and requirements applied by the Sarbanes-Oxley Act of 2002 (SOX) on all publicly traded corporations, was correlated to dividend distribution. Several corporations had previously begun utilizing independent directors' members in the board of directors and independent committees elected by the board of directors before the SOX requiring them obligatory in 2002.

Roy's (2015) study's main goal was to test if "pre-adopters" corporations encounter less adjustment in their dividend distribution policies than those obliged to adapt their board of directors and committees' structure.

Roy (2015) used the difference-in-differences approach to control the endogeneity matters that were usually considered as limitations for the previous governance research. The difference-in-differences technique was performed by testing the impact of dividend distribution correlated with the external requirement of adding independent directors' members on the publicly traded corporation board of directors' structure. Roy (2015) demonstrated a significant positive association between corporations required by law to adjust their board of directors' composition, improvements in average changes in distributing dividends, and percentage changes in dividends paid. Roy's (2015) research results indicated

that these board structure adjustments resulted in making decisions that increased dividend payouts measured in percentage, in addition, dividend payouts and total dollars distributed in cumulative dollar amount terms.

Jain and Chu (2014) evaluated the cross-sectional differences in corporations' dividend distribution policies among 32 countries. In addition, the effect of corporation-specific accounting and financial factors, they examined the country level variations, i.e., stockholder demand based on demographic differences and consumption needs, agency challenges revealed in the extent of minority stockholder's protection and disclosures, and market characteristic regarding transparency and liquidity impact on the dividend payment policies. Jain and Chu (2014) pointed out that corporations have substantial dividend payment policies when diverse shareholder demands are high, levels of business disclosures and shareholder's legal protection status are low, and the market qualities are deficient. The results prove the existence of solid dividend clienteles in a global situation.

Budiarso (2018) used Indonesian corporation samples' data and conducted a study to investigate the factors determining dividend policy on 230 listed corporations between 2010 and 2011. Budiarso (2018) performed a logistic regression to test the hypothesis. Budiarso pointed out that profitability, firm size, and institutional ownership have a significant relationship with the dividend policy, whereas managerial ownership is insignificant. In addition, the more institutional ownership in the firms tends to distribute more dividends. Moreover, the research provides evidence that agency theory is not relevant to Indonesia's dividend policy as managerial ownership does not correlate with the dividend policy.

He et al. (2016) evaluated whether dividend policy affects earnings management and if the correlation between dividend payment status and profit management shows a difference among countries with widespread institutional strength and transparency degrees. Additionally, He et al. (2016) provided a reasonable interpretation of the differences in the

dividend-earnings management associated with the country-level agency interest by utilizing corporations' future accessibility to external funding resources.

He et al. (2016) utilized a sample of 23,429 firms from 29 different developed and emerging markets. He et al. (2016) pointed out that the corporations that pay dividends do not manage earnings more than the corporations that do not issue dividends. This suggestion is high in countries with low investor protection and high uncertainty. In addition, the corporations that pay dividends do not manage profit as much as they issue equity after paying dividends. This consequence is more evident in countries with weak institutions and weak transparency. Generally, the corporations may utilize paying dividend policies related to less income manipulation to alleviate agency problems, build up a solid reputation, and facilitate the ability to reach external financing resources.

Al-Najjar and Kilincarslan (2016) used Turkish corporations' data to examine the ownership structure's effect on the dividend distribution policy. Regression methods (logit and Tobit methods) were used to examine the study assumptions using an updated large panel dataset of 264 Istanbul Stock Exchange-listed corporations during the period 2003-2012.

Al-Najjar and Kilincarslan (2016) found that foreign and government ownerships are correlated with less probability of distributing dividends. Other ownership factors include family participation, national financial institutions, and minority stockholders insignificant in influencing the possibility of issuing dividends. Nevertheless, all the ownership factors have a significantly negative influence on dividend payout ratio and dividend yield. Therefore, their research results provide consistent proof that, in general, increasing ownership of foreign investors and the state diminishes the necessity for distributing dividends in the Turkish market. In addition, Al-Najjar and Kilincarslan's (2016) research showed that dividends paid in cash are not utilized as a monitoring technique by investors in the Turkish market. The

ownership confiscation through dividend distribution for Turkish families is comparatively weak.

Khan et al. (2018) conducted a study to investigate the effect of ownership structure and company dividend policy on the corporation performance of oil and gas of Pakistanis corporations traded on the KSE 100 Index. Khan et al. (2018) used panel data collected from the corporation's published annual reports of oil and gas corporations during the period of 2004 to 2014. Khan et al. (2018) used the Hausman Test to test random or fixed effects. Thus, the fixed effects were employed to test the impact of ownership structure along with dividend policy on the corporation performance. The findings showed that the board of directors member ownership and institutional ownership do not positively affect corporation performance. In contrast, individual stockholders or ownership has positive results over the firm performance. In addition, the ownership structure, the board of directors member ownership, institutional stockholder ownership, and individual stockholders do not have positive effects on the firm's dividend policy.

Iqbal et al. (2018) conducted a study to investigate the impact of stock ownership structure on dividend policy and corporation value utilizing the agency's perspective. Their study used a sample of the manufacturing corporations listed in the IDX from 2010 to 2016. The data were examined by employing Smart PLS (Partial Least Square). The stock ownership structure is categorized into three different categories: managerial ownership, institutional ownership, and state ownership.

Iqbal et al. (2018) utilized four different variables to evaluate the dividend policy, which consists of the dividend per share, dividend payout ratio, and dividend yield, while the value of the corporation is measured by the market to book value ratio (MBVE), Tobin's Q, and stock closing price. The structural model investigation detects that stock ownership structure had a significantly negative impact on dividend policy, which means that an

increase in the corporation's managerial and institutional ownership will decrease dividend policy. Moreover, the share ownership structure shows to have an insignificant and positive impact on the corporation value. The dividend policy appears to have a significant and positive impact on the corporation value in case of a higher dividend per stock, dividend payout ratio, and dividend yield will influence the increase of corporation value.

Ting et al. (2017) examined the impact of ownership concentration on Malaysian corporations' dividend payout from an agency viewpoint and how it impacts its operation. Ting et al. used a sample of 580 firms selected from the Main Board of Bursa Malaysia, and a total of 5,584 observations from these 580 companies were collected for the period from 2005 to 2015.

Ting et al. (2017) used the dividend payout ratio to measure the dividend payout, and the performance is calculated as the ratio of net profit after tax to shareholder's equity. The regression analyses' findings show that the Malaysian firms with a high level of ownership concentration are less expected to offer dividends since the majority of investors prefer to use cash flow to invest in various developments that are beneficial for them. The presence of an inverse relationship between ownership concentration in the control of the largest investors and the total dividends paid is an indicator of the agency's problem between the main and minor stockholders.

Ownership concentration increases the firm's productivity because it supports the agency's vision that ownership concentration seems to be an active internal corporate governance policy that assists in improving performance. Additionally, a direct relationship between ownership concentration and company performance exists. Ting et al. pointed out that investors can employ efficient monitoring activities on the administration and other controlling investors who may have various goals regarding the corporation. Ting et al.'s

55

research implies that ownership concentration might additionally operate as a monitoring mechanism.

Arora and Srivastava (2019) investigated the correlation between ownership concentration and dividend payment in India during 2010–2017 by employing a panel-data technique. Arora and Srivastava (2019) pointed out that ownership concentration is positively related to dividend payment, which contrasts with many developed markets and verifies the same results in the emerging market. In addition, the existence of a large stockholder, other than an individual, has adverse effects on the distribution of dividends.

Sakinc and Gungor (2015) researched the link between the ownership structure theory and dividend policy in Turkish firms. The concept of ownership structure is directed into two variables as ownership concentration and ownership composition. A sample of 271 firms operating in the and banking sectors is selected among the publicly traded businesses in the Istanbul Stock Exchange between 2004 and 2011. Information was gathered from the Istanbul Stock Exchange's website and public data available in the public disclosure platform. Panel data analysis was used as a research method.

Sakinc & Gungor (2015) demonstrated that as the largest investor's share increases in firms, the dividend payout ratio also increases. The largest investor's share increases in firms allow the largest investor to interfere with management's decisions with the one share-one vote rule action. Additionally, the largest investor may force the board of directors and minority investors to achieve effective project plans, reducing the agency cost problem. Further evidence pointed out the negative relationship between the foreign ownership of ownership structure variables and dividend payout ratio. Consequently, the higher the rate of foreign ownership, the lower the dividend ratio.

Review of the Practitioner Literature

This section describes vital empirical studies that have been performed in the environment of both developed and developing marketplaces to examine the link between ownership structure or concentration and dividend policy. Dividend distribution policy is defined as the payout policy a corporation pursues in determining the size and cash payout pattern to stockholders (Baker et al., 2012; Jabbouri, 2016).

In the United States of America, the illustration of existing dividend policy normally concern with the transaction costs, and information costs lead to signaling and agency costs, taxes, and the legal system. Under the U.S. financial system, a number of these variables seem to be the same across corporations. Therefore, it is not easy to isolate the variable's impact on dividend policy. Nevertheless, it is expected that in a financial system organized differently, outcomes from the United States may not retain, so they might be capable of relating the significance of variables mostly suppressed in the United States. Booth and Zhou (2017) reviewed the outcomes from both comparative and international dividend policy research in their selective evaluation. A country's financial system, institutions, culture, and industrial structuring are crucial in clarifying the dividend payment policy (Booth & Zhou, 2017).

Dividend payments improve information transmission and alleviate agency problems by minimizing management access to free cash flow (FCF), exposing corporations to the investigation, monitoring market participants such as investors, and financing companies when using external capital sources. The decrease in agency costs and enhancement in information broadcasting decrease capital and investment cost at an extra competitive cost of fund improving corporation value. For REITs, since the mandatory high dividend allocation, growth relies on the accessibility of external funds at competitive costs, the alleviation of agency costs is significant to maintain growth (Ghosh & Sun, 2014).

Ghosh and Sun (2014) used a sample of U.S. equity REITs to investigate the correlation between dividend payments and growth. The data collected showed a significantly positive correlation among externally financed growth and dividend distributions. The correlation is strong between REITS with extra growth opportunities and REITS that issue new stocks and debt. Ghosh and Sun (2014) explained it as coherent with the concept that by minimizing agency costs and enhancing capital raising availability, dividends improve growth.

Sakir and Fadli (2014) conducted a study to examine how the managerial ownership, debt policy, profitability, corporation size, and free cash flow (FCF) influence the dividend payment policy in manufacturing corporations' industries and analyze the significant variables that affect dividend payout policy. Sakir and Fadli (2014) used a sample of the eight corporations listed on the Indonesian Stock Exchange and employed the purposive sampling technique. Through running multiple linear regression analyses, they found a significant positive effect of the free cash flow (FCF) on the dividend payout policy, which was considered the significant variable that influenced it. On the other hand, they did not report any significant negative relationship between the debt policy and firm size with the dividend payout policy. Furthermore, Sakir and Fadli (2014) did not find any significant positive impact of profitability on the dividend policy.

Agency theory assumes that outside stockholders desire higher dividend distribution to minimize the free cash flow of corporations that are in circumstances of the insiders' control environment (Firth et al., 2016).

Firth et al. (2016) conducted a study to examine the impact of mutual funds, usually the most effective and leading form of the outside stockholder, on corporations' dividend payouts in China through the period 2003 to 2011. They pointed out that mutual funds affect corporations to distribute higher cash dividends, which is coherent with the expectations from

exit theory. The impacts are noticeable in corporations controlled by state and regional government ownerships and corporations with comparatively higher free cash flows (FCF). In addition, they report that the mutual funds' impact was strong if the corporations' investment horizon longer and the ownership interest higher. Other institutional investors, such as banks, insurance corporations, and securities corporations have a minor exit threat and do not impact corporations' cash dividend distribution or financial performances.

Gonzalez et al. (2017) studied the impact of ownership concentration on dividend policy in developing markets by investigating Latin American publicly traded firms during the period 2007-2014. The countries under examination were Argentina, Brazil, Chile, Colombia, Mexico, and Peru. Data were gathered from the Thomson One Corporate Development database by gathering 1,464 firm-year observations to build dividend-correlated variables and company-precise variables that may impact the percentage of dividend paid in Latin America.

The findings by Gonzalez et al. (2017) show a negative link between ownership concentration and dividends when the largest investors are individual stockholders, constant with smaller investors' wealth confiscation. Results also indicate that when the second-largest investor owns a solid position in the company's ownership, and ownership concentration is high, the company's lower level of dividends is evident. When ownership is concentrated, the major investor cannot extract private profits because of the observant act of another strong investor who is not an individual shareholder. Consequently, other investors will demand a lower level of dividends because of the lower decrease of wealth expropriation.

Abdioğlu (2016) conducted a study to investigate the variables that affect Turkish corporations' dividend payments traded in the Bosra Istanbul-100 Index during the period 2005 to 2013. Abdioğlu (2016) used the Random-effect Tobit panel regression to examine the factors that play an essential role in determining the country's dividend policy. Based on the

empirical test, corporations with higher cash flows, large corporations, and corporations with high growth opportunities distribute more dividends. Nevertheless, a significant relationship concerning managerial ownership cannot be reported for the entire sample. The managerial ownership factor negatively affects dividend payment. Moreover, the sample is split into two segments as low leverage companies and high leverage companies. The projected exchange between leverage, managerial ownership, and the dividend payout ratio was examined, and a significant correlation cannot be reported.

Dąbrowska et al. (2019) conducted a study to investigate the determinants of dividend payout decisions. They used a sample from 15 countries using emerging market data of food industry corporations. The random-effect technique was used to analyze the data with a total of 799 observations over the period 2003-2016. The free-cash-flow is measured by the difference between net cash flow from operating activities and average capital expenditures; the percentage change in sales measures for growth opportunities. The liquidity is measured by dividing current assets over current liabilities. The value of the corporation's profitability is measured by the ratio of net income to total assets. The firm size is measured as the natural log of total assets. Dąbrowska et al. (2019) demonstrated that the free cash flow, the growth opportunities, the profitability, the liquidity, and firm size are important factors that affect the dividend policy.

Different research has been done utilizing Jordanian corporations' data to investigate the determinants and dividend policy behavior followed by Jordanian firms. Al-Najjar (2009) examined the dividend distribution policy decision in developing countries by utilizing Jordanian non-financial corporations' data between 1994 and 2003. Al-Najjar (2009 pointed out that the determinants of dividend distribution in Jordanian corporations are the same as those proposed in developed markets. Furthermore, the research added further proof if Jordanian corporations have target dividend payout ratios, they adapt to their target dividend

payout ratio. Thus, the Lintner model is suitable for the intention of examining Jordanian corporation's data.

Through utilizing the same sample, data, and period of Al-Najjar (2009), Al-Najjar (2010) examined the factor, institutional investors, as a company governance index in emerging markets. Al-Najjar (2009, 2010) pointed out that institutional investors consider different variables in the process of investment decision-making, such as the company's capital structure, profitability, business risk, asset structure, asset liquidity, and growth rates, and firm size. Furthermore, institutional investors in Jordanian corporations' desire to invest in services corporations rather than manufacturing corporations. Additionally, the research does not prove any significant correlation among corporations' dividend distribution and institutional investors.

By supposing asymmetric modification to the targeted dividend distribution, Zurigat and Gharaibeh (2011) examined the partial adjustment model by utilizing Linter (1956). They used a sample of 38 Jordanian corporations. They concluded that corporations have a target dividend distribution with a small rate of target adjustment. Furthermore, target adjustment is an irregular process that changes depending on dividend distribution status if it is a higher or lower target. Dividend modification resulted in irregular for under-target dividends distribution adjustment as well as for above-target with positive and negative profits. Zurigat and Gharaibeh (2011) presented research findings that provide evidence of agency clarification of dividend smoothing's asymmetric information.

By running several multiple regressions using the return on assets as a proxy for dividend payout policy instead of Tobin's Q, Warrad et al. (2012) studied the relationship between ownership structure and dividend payout policy for the industrial companies listed on the ASE for the period 2005-2007. The findings revealed no relationship between private ownership, government ownership, foreign ownership structure, and the dividend policy

measured by Tobin's Q. However, the results show a positive and significant relationship between foreign ownership and dividend payout policy.

Al-Shubiri et al. (2012) studied the potential relationship between ownership structure and dividend policy. Al-Shubiri et al. investigated the dividend's payment behavior and the relationship with the Jordanian industrial corporations' ownership structure between 2005 and 2009. The findings show that the ownership structure method is very appropriate to grasp the firm's dividend policy in Jordan (Al-Shubiri et al., 2012).

To be more specific, there is a significantly negative association between institutional ownership, the level of the five largest stockholders' ownership, and the dividend payout ratio (Al-Shubiri et al., 2012). While government ownership shows a significantly negative correlation with dividend payout ratio, the regression results on the five models show a strong effect of the free-cash-flow on the dividend policy. The empirical test showed a significant negative relationship between corporation size and the dividend payout ratio. In addition, corporations with excellent investment opportunities are more willing to distribute dividends, and corporations with high leverage tend to pay less dividends.

Khatib and Al-Harethi (2018) investigated the principal variables influencing corporations' payout policies listed on the Jordanian Capital Market. In 2006, the Jordanian Securities Commissions allowed the corporation to make stock repurchase transactions for their own listed stocks on the Amman Stock Exchange, and the payout policies might have been affected. A quantitative research design was utilized, 400 surveys were allocated to department managers from 70 out of 111 listed corporations on the Amman Stock Exchange, 350 were gathered, and 330 usable surveys were examined.

Application of the Literature

The theoretical framework literature presented the evolution and development of dividend policy theories. The dividend policy underwent rigorous study and examination

since Modigliani and Miller (1956) developed the irrelevant dividend theory, which stated that both internal and external investment substitutes for each other. Friend and Phuket (1964), Black and Scholes (1974), and others confirmed that when the capital market's perfect assumptions are relaxed and considered not perfect, the explanation of dividends policy becomes more challenging for economist researchers.

In 1976, Jensen and Meckling developed the agency theory and pointed out that the dividend policy is directed by the agency conflict between the corporation's management and the shareholders. Three aspects of agency cost create conflicts between shareholders and management: Management entrenchment, Managerial Risk Aversion, and Free Cash Flow.

An examination of relationship between issuing dividends and the corporation's stock price from the signaling dividend theory perspective, Battacharya (1979) pointed out that dividends perform as a signal of future cash flow. After the researcher reviewed the studies that examined the signaling dividend theory, we can say that dividends could provide an unclear signal to shareholders related to the current income; consequently, decreasing the information asymmetry, according to Watts (1973), Gonedes (1978), Miller & Rock (1985), Raaballe & Bechmann (2002), and Tse (2005), Hussainey & Al-Eisa (2009), Dionne & Ouederni (2010), and Liu & Chen (2015).

Based on the dividend clientele theory, shareholders are usually divided between institutional and individual investors. The dividend clientele theory assumed that investors have their own systematic preferences to build their dividend portfolios based on the occurrence of tax and transaction costs. Consequently, the type of shareholders influences the corporation's stock price and dividends. In addition, from a tax perspective, paying dividends is a significant variable since high dividends usually offer greater risk for individual shareholders.

The seminal literature presented the outstanding research that have substance within the development of the dividend policy framework. Based on the irrelevant dividend theory, Modigliani & Miller (1956) pointed out that based on the capital market's perfection hypotheses, dividend policy is irrelevant to the firm's value. Many scholars supported the idea of irrelevant dividends, for instance, Friend & Phuket (1964) and Black & Scholes (1974). Black (1976) described the concept of dividend and said, "The harder we look at the dividend picture, the more it seems like a puzzle with pieces that just do not fit together" (p. 1). Another critical theory that considered the corporate dividend behavior was Lintner's Stability Dividend Theory (1956). Mehrani et al. (2011), Harada & Nguyen (2009), Karathanassis & Chrysanthopoulou (2005), and Short et al. (2002) measured the dividend as a sum of declared dividends for every ordinary share issued.

Two main studies were considered as the primary research followed in the current study. The first was conducted by Short et al. (2002), and the second by Karathanassis & Chrysanthopoulou (2005) to test the potential relationship between institutional ownership and dividend policy. Moh'd et al. (1995), Han et al. (1999), Manos (2002), Abedelsalam et al. (2008), and Kouki & Guizani (2009) demonstrated a positive relationship between dividend policy and institutional ownership.

Regarding managerial ownership, Jensen and Meckling (1976) pointed out that when corporations' management works efficiently, stockholders and investors will maintain the management team to resume the supervision of the corporation's daily operation. Harada & Nguyen (2009), Short et al. (2002), Farinha (2003), Karathanassis & Chrysanthopoulou (2005), and Sakir & Fadli (2014) found a significant negative relationship between dividend payout ratio and managerial ownership.

To control the effect of other variables that may affect dividend policy, additional variables are used in the current study; namely, earning per share, free cash flow, future

growth opportunity, firm size, and leverage. The fundamental study investigated the relationship between earnings and dividend changes behavior is Lintner's (1956) stability theory. In the stability theory, Lintner's (1956) assumed that corporations have a target payout ratio, and changes in earnings drive the issuing dividend changes. Corporations require maintaining efficient earnings management (Lev, 1989). An increase in the corporation's earnings leads to increased corporation value, while a drop in earnings leads to a decrease in corporation value.

Earnings per share were measured by dividing the profits available to the equity shareholders (net income) by the number of shares outstanding. Earnings reflect a measure of the change or shift in the corporation's value to common shareholders through a period (Nichols and Wahlen, 2004). Ahmed & Javid (2009), Al-Ajmi & Hussain (2011), and Nnadi et al. (2013) pointed out evidence that there is a positive relationship between issuing dividends and earnings per share. Munyua (2014) demonstrated that issuing dividends was a significant variable to any corporation for successful goal attainment to meet the shareholder's needs. Baker & Powell (2000) argued that the good financial performance of a corporation leads to issuing high dividends distributed to shareholders.

By utilizing Lintner's (1956) model, Skinner (2006) investigated the developing association between earnings, dividends, and share repurchases over time and pointed out that the correlation weakens after 1980, which is credited to the declining management willingness to issue increased dividends. Musa (2009) tested the relationship between corporations' dividend policy and current earnings and pointed out that earnings had a significant positive effect on corporations' dividend policy. The results on the impact of earnings on issuing dividends supported the results of Fama & French (2001), who identified that different variables influence the corporation's issuing dividend, including, amongst others, earnings per share, investment opportunities, and firm size.

With regards to the Free Cash flow (FCF) variable, Jensen (1986) argued that when corporations have extra cash that exceeds needs for financing investment projects that have a positive net present value (NPV), it is better to pay a dividend to minimize discretionary managerial funds. Rozeff (1982), Crutchley and Hassen (1987), Jensen et al. (1992), Alli et al. (1993), Mollah et al. (2000), and Cheng et al. (2014) provided evidence on the relationship between dividend policy and free cash flow.

For the future growth opportunity variable, Rozeff (1982), Lang & Litzinberger (1989), Gahoum (2000), Farinha (2002), and Amidu & Abor (2006) demonstrated evidence on the relationship between dividend policy and future growth opportunity. For firm size, many scholars provided evidence on the relationship between dividend policy and firm size variable, for instance, Scott & Martin (1975), Smith & Watts (1992), Drobetz et al. (2006), and Ramachandran & Packkirisamy (2010). Gadhoum (2000) proposed that the signaling efficiency of dividends decline for the larger corporations because larger corporations produce more information than smaller ones.

Regarding the corporation's leverage (Lev) ratio variable, Jensen & Meckling (1976), Jensen (1986), and Stulz (1990) demonstrated that the corporation's financial leverage had an essential role in controlling managers' behavior by minimizing the agency cost of conflict between the shareholders and managers, subsequently increasing value. Myers & Frank (2004), Kouki & Guizani (2009), Vo & Nguyen (2014), Manneh & Naser (2015) demonstrated evidence on the relationship between dividend policy and corporation's leverage (Lev) ratio either a positive or negative.

The core literature reviewed the most recent studies that have been performed in the environment of both developed and developing markets to examine the link between ownership concentration and dividend policy. From using emerging countries data, Boţoc & Pirtea (2014) analyzed the fundamental variables that drive the corporation's dividend

payment policy and pointed out that the residual cash flow model of dividend as a cash organization and liquidity impacts dividend payments. In addition, corporations from emerging nations exhibit dividend payout patterns relatively like companies from developed countries. Similarly, Lu et al. (2014) demonstrated that the cash dividend portfolio's income level is considerably less than the income level of the stock dividend portfolio and non-dividend portfolio. Also, the listed corporations issuing stocks as a dividend have great investment value.

Concerning the signaling theory perspective, Liu & Chen (2015) pointed out that decision-makers adjust dividend payments to signal equity-scaled instead of asset-scaled profit forecasts. Furthermore, Liu & Chen add evidence that management also amends dividend payments to signal previous profit changes and serve dividend customers. Lin et al. (2018) demonstrated that the more information asymmetry the corporations experience, the less probably they will pay more dividends. Trabelsi et al. (2019) noticed that the percentage of dividend distributors increases with the dividend premium and a negative relationship between the dividend premium and the confidence index of French households. In addition, there was a significant positive impact of the dividend premium on the corporation's propensity to dividend distribution.

 Concerning the corporate governance theory, Pahi & Yadav (2018) stated that dividend distribution might be an alternative for corporate governance as a mechanism for controlling the agency problem. Concerning the legal protection of shareholders, Roy (2015) pointed out that a significant positive association between corporations that were required by law to adjust their board of directors' composition and improves in average changes in distributing dividend, and percentage changes in dividends, comparable to corporations that had pre-applied the Sarbanes-Oxley firm board composition prerequisites. Similarly, Jain & Chu (2014) pointed out that corporations have substantial dividend payment policies when

67

diverse shareholder demands are high, levels of business disclosures and shareholders' legal protection status are low, and the market qualities are deficient.

Budiarso (2018) pointed out that profitability, firm size, and institutional ownership had a significant relationship with the dividend policy, whereas managerial ownership was insignificant. He et al. (2016) demonstrated that corporations might utilize paying dividend policies related to less income manipulation to alleviate agency problems and to build up a solid reputation in this manner, facilitating the ability to reach external financing resources.

Sakinc & Gungor (2015), Al-Najjar & Kilincarslan (2016), Ting et al. (2017), Khan et al. (2018), Iqbal et al. (2018), Arora & Srivastava (2019) examined the effect of ownership structure on company dividend policy and demonstrated a significant relationship between ownership structure and dividend policy.

The practitioner literature showed empirical studies that have been performed in the environment of both developed and developing markets to examine the relationship between ownership concentration and dividend policy. Booth & Zhou (2017) stated that a country's financial system, institutions, culture, and industrial structuring are crucial in clarifying the dividend payment policy. Ghosh & Sun (2014) investigated the correlation between dividend payments and growth and demonstrated that dividend payments improve information transmission and alleviate agency problems through minimizing management access to free cash flow (FCF).

Gonzalez et al. (2017) studied the impact of ownership concentration on dividend policy in developing markets. They find a negative link between ownership concentration and dividends when the largest investors are individual stockholders, constant with smaller investors' wealth confiscation. In contrast, Sakir & Fadli (2014) did not find any significant negative relationship between the debt policy and firm size with the dividend payout policy and no positive impact of profitability on the dividend policy. However, they pointed out a

significant positive effect of the free cash flow (FCF) on the dividend payout policy. Scholars like Abdioğlu (2016) and Dąbrowska et al. (2019) conducted studies to investigate dividend policy determinants.

Different researchers utilized Jordanian corporation's data to investigate the determinants and the behavior of dividend policy followed by the Jordanian firms. For instance, Al-Najjar (2009) and Al-Najjar (2010) studied the determinant of dividend distribution policy decisions. They demonstrated that the variables determining dividend distribution policy decisions are the same as those proposed in developed markets. Furthermore, further evidence pointed out that the Lintner model was suitable for examining Jordanian corporation's data since the Jordanian corporations tend to have target dividend payout ratios. Meanwhile, Zurigat & Gharaibeh (2011) examined the partial adjustment model by utilizing Linter (1956) and pointed out that dividend modification resulted in irregular under-target dividends distribution adjustment and above-target with positive and negative profits.

By studying the relationship between ownership structure and dividend payout policy, Warrad et al. (2012) demonstrated no relationship between private ownership, government ownership, foreign ownership structure, and the dividend policy. In contrast, Al-Shubiri et al. (2012) found a significant negative association between the institutional ownership, the level of the five largest stockholders' ownership, and the dividend payout ratio, while government ownership shows a significantly negative.

The reviewed literature presented the development and the logical progression of dividend policy and its determinant. The theories are related to and formulate a corporation's dividend policy using data from different sectors, industries, and populations in different countries worldwide. Dividend policy is significant in the research of the specific business problem such as agency cost problem. Additionally, it may establish the vital role of the

69

corporate governance framework in the field of stock investment by contributing to the body of knowledge about dividend policy and the decision-making process for the successful investment decision.

The literature review implies that most of the previous studies have performed utilizing the corporation's data in developed capital markets, considering the effects of the corporate governance on a firm's performance, the effect of ownership concentration, and ownership mix on dividend policy. Ownership concentration was correlated to the percentage of stocks owned by the majority stockholders, while ownership mix was considered the significant stockholders' identity. Nevertheless, preliminary research investigates the correlation between ownership structure and dividend policy by employing a dividend payout ratio as a dependent factor and using both institutional ownership and managerial ownership as independent factors. Therefore, the researcher in the current study employed the explanatory power of the dividend distribution policy models: Lintner's partial and full adjustment model (1956). The models were adjusted to take into consideration variables demonstrating ownership concentration by institutional investor and management ownership. Nevertheless, only some studies investigate this matter in emerging markets.

The following table represents the projected variable and its expected relationships between the dependent variables and the independent variables.

Table 3

Research's Variables List

#	Variables	DV/IV	Expected Sign
1	Dividends Payout Ratio	DV	
2	Earnings per share	IV	+
3	Institutional ownership	IV	+
4	Managerial ownership	IV	-

70

5	Free Cash Flow (FCF)	IV	+
6	Market to Book Value Ratio (MTBV)	IV	-
7	Firm size	IV	+/-
8	Leverage	IV	-

Note. DV: Dependent Variable; IV: Independent Variable

As a matter of fact, the current research might be crucial research utilizing dividend payout models established by Lintner to investigate the potential correlation among ownership concentration and dividend policy using Jordanian firm's data. The next chapter discusses the population, sample selection, measurements of variables, and methodology used to analyze the data and empirical models used to accomplish the study's objectives.

Chapter 3

Methodology

The decision to distribute dividends is essential in formulating corporate strategic financial policy (Reyna, 2017; Jabbouri, 2016). The interpretation of actual dividend policy usually emphasizes transaction costs, information costs that lead to signaling and agency

71

costs, taxes, and the legal system (Booth & Zhou, 2017). The purpose of this quantitative correlation study was to examine the relationship between dividend policy as a dependent variable and ownership concentration using (institutional ownership and managerial ownership) as independent variables. The researcher used additional variables since they are related either to the dependent or independent variables. The additional variables included the earning per share, leverage, free-cash-flow, future growth opportunities, and firm size. The following chapter provided an overview of the research method, including the sample, data collection and analysis methods, validity, reliability, and ethical considerations for the study.

Statement of the Business Problem, Research Question(s), and Hypotheses

The specific business problem is that the corporation's leaders within the Jordanian Capital Market lack specific knowledge of the relationship between ownership concentration and its dividend policy (Gonzalez et al., 2017). Below are the research questions and hypotheses used to accomplish the purpose of the study:

RQ1: Is there a relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t,i}$)?

H0: There is no relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t,i}$).

H1: There is a relationship between institutional ownership and (INST) and the corporation's dividend payout ratio ($D_{t,i}$).

RQ2: Is there a relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t,i}$)?

H0: There is no relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t,i}$).

H1: There is a relationship between managerial ownership and (INST) and the corporation's dividend payout ratio ($D_{t,i}$).

RQ3: Is there a relationship between the additional independent variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t.i}$)?

H0: There is no relationship between earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t.i}$).

H1: There is a relationship earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t.i}$).

RQ4: To what extent do the institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), predict the variance in the Jordanian corporations' dividends payout ratio ($D_{t.i}$)?

H0: The institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV) do not predict the variance in the Jordanian corporations' dividends payout ratio ($D_{t.i}$).

H1: The institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV) do predict the variance in the Jordanian corporations' dividends payout ratio ($D_{t.i}$)?

RQ5: Which of these models; the Full Adjustment model (FAM) and the Partial Adjustment model (PAM) able to best explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i}$ - $D_{(t-1)i}$)?

H0: The ability of the Full Adjustment model (FAM), better than the Partial Adjustment to explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i}$ - $D_{(t-1)i}$).

73

H1: The ability of the Partial Adjustment model (FAM), better than the Full Adjustment to explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i}$ - $D_{(t-1)i}$).

Research Method

To accomplish the objectives of the research, the researcher used a quantitative research method. Leedy and Ormrod (2001) pointed out that quantitative research is precise in its surveying and testing, as it constructs based on existing theories. The method of quantitative research sustains the assumption of an empirical paradigm (Williams, 2007). The goal of quantitative research is usually precise and narrow, concentrating on only a few measurable variables (Sage publication p. 109). The quantitative research method concentrates on collecting numerical information, generalizing the results over a study population, or clarifying a specific phenomenon (Babbie, 2010; Muijs, 2010).

The purpose of utilizing qualitative research is to explain and understand human behavior depending mainly on the expressions of selected individuals, informants, or respondents and explain their material culture or occupied space. Every single step of qualitative research is a reflexive procedure to certify that the investigator's biases, presuppositions, and interpretations are evident, confirming that the study reader can deduce the study's total validity (Maxwell, 2008).

Due to the nature of the data set used in the study, a qualitative approach was not appropriate because the researcher did not explore a phenomenon using a reflexive process. Instead, the researcher examined relationships between institutional ownership and managerial ownership as independent variables and dividend policy as a dependent variable, making a quantitative approach appropriate for the study. Also, the researcher did not use a survey in the research process because of the secondary data used. To collect the variable's data, the researcher used the corporations' annual reports to constructs the historical panel data set. The panel data were collected from the annual report of corporations published at the

74

Amman Stock Exchange, Jordan Securities Commotion, and The Securities Depository

Center websites.

Research Design

The researcher used a quantitative correlational design with a multiple regression to

fulfill the purpose of the research. A correlational research design is comprised of the

measurement of two or more related factors and an evaluation of the relationship among the

variables (Williams, 2007). The correlational design objective is to "uncover factors that

express systematic relationships with each other" (Stangor, 2014, p. 16). Due to the nature of

the data set used in the research, the quantitative correlation design is the proper design for

testing the relationship between quantitative research variables. The correlational design can

detect whether and how strongly two variables are related (Ang, 2014).

The researcher reviewed three different quantitative research designs. First, the

researcher considered a descriptive quantitative design. Using descriptive designs,

investigators describe and interpret the status of variables, settings, conditions, or events

(Stangor, 2011). Additionally, in this design, the researcher examines the phenomenon of

research interest as it exists naturally (Mertler, 2018). The descriptive research design does

not assess if a relationship occurs between research variables. Subsequently, a descriptive

research design is not appropriate for determining an association between dividend policy and

ownership concentration.

The second considered design is an experimental research design, which is collective

and laboratory research. The researcher utilizes the scientific way to examine the cause-effect

association between the variables. Manipulations on a dependent variable occur in conducting

experimental research. Participants are randomly selected for experimental treatment instead

of assigned to a naturally occurring group (Stangor, 2011). The experimental design did not

apply to the researcher's study since the researcher intended to examine the relationship

between the dependent and independent variables using pre-existing econometrics models. Additionally, the researcher did not consider the cause-effect relationship.

The third design reviewed was the survey design, where the researcher asks specific questions to a group of respondents to describe opinions, experiences, behaviors, attitudes of the study population (Stanger, 2011). There is no particular sample selection technique in the survey design that ensures optimal representation (Mertler, 2018). Due to the nature of the data used in this research, the survey design was not an appropriate design to use.

<div align="center">**Research Setting**</div>

The researcher collected the data set manually from the published corporations' annual reports and stored it in an excel sheet to extract the study's variables' values. The data set source used for the research was panel data collected from corporations' annual reports published online. Amman Stock Exchange, Jordanian Securities Commission, and The Securities Depository Center were the government organizations whose websites were used to download the annual reports for the Jordanian publicly traded corporations. The geographic location of the research's data sources was in Jordan. Furthermore, the researcher used publicly published documents related to the study; therefore, the study did not require organizational site permission, and there are no sponsoring organizations involved in the study.

The investigation of the relationship between dividend policy and ownership concentration provided an in-depth understanding of the study variables' relationship. Additionally, it provided a signal for strategic financial leaders to concern about dividend policy and sustained a relationship with corporate stakeholders. Furthermore, it provided evidence on how the dividend policy impacts the corporations' cost of capital.

Sample Selection

The research population comprised Jordanian publicly traded corporations listed on the Amman Stock Exchange, with a total number of 194 corporations at the end of the year 2017. The corporations included 16 banks, 23 insurance corporations, 92 service companies, and 63 industrial corporations. The researcher used the method by Short et al. (2002), Karathanassis & Chrysanthopoulou (2005), to construct the study sample by applying the following selection criteria as noted below.

For ownership concentration data collection, the corporation had to be listed on the Amman Stock Exchange for the entire research period without interruption. Furthermore, the corporation had to be listed in the year 2011 for two purposes. First, to ensure that ownership concentration was not affected by the impact of a recent listing. Secondly, as the proxies involved in the empirical models referred to year-to-year changes in their respective values, only firms that were present every year were included continuously for the entire period.

Corporations in the financial and oil sectors were excluded because of the different income measuring standards governing the financial and oil corporations compared to the manufacturing and service sectors. Furthermore, corporations that transferred from public to private ownership or privatized (e.g., water, electricity, gas, and telecommunications) were excluded as operating conditions in terms of regulations and monopoly markets are generally atypical. Furthermore, corporations operating in the media and broadcasting sectors were excluded because of the market's regulatory characteristics and the changes in regulations that occur during the period (e.g., tendering for operating licenses, changes in rules governing the ownership, controlled by the government usually). Also, corporations to be included in the sample would need to have distributed cash dividends for three years as a minimum during the research period.

Additionally, the researcher added two additional criteria that only applied to the Jordanian market. First, all corporations with stock ownership characteristics that did not underline the classic one-vote right for each ordinary share were excluded. Consequently, corporations with share structures containing non-ordinary voting shares (e.g., voting A shares, management shares, founders' shares) were excluded. Second, all included corporations in the sample had a CFI CODE (ESVUFR). The stock with (ESVUFR) means the corporation stock had to be an equity, stock, voting right, ownership transfer, unrestricted, and fully paid and registered.

After the researcher implemented the criteria mentioned above, the total selected sample was 37 corporations of 194 corporations from the study population for the period from 2011 to 2017, with 259 total observations. The data on the variables used in regression statistical analysis, as noted below, were collected by the researcher from corporations' annual reports published online, using the Amman Stock Exchange, the Jordanian Securities Depository Center, and the Jordanian Securities Commission websites.

Instrumentation

The current study did not utilize formal research instruments. The data collected, as noted below, utilizes an Excel template. The researcher used institutional ownership and managerial ownership as independent variables to examine the relationship between ownership concentration and dividend policy. The corporation's earnings per share, free cash flow, growth opportunity, firm size, and leverage were used as additional variables. Since the researcher focused on using existing theories, assumptions, models, and no human participant to collect the variable's data, the researcher used historical panel data collected from the published annual reports of publicly traded corporations listed at Amman Stock Exchange from 2011 - 2017. The researcher utilized the measurement of the variables used by Mehrani et al. (2011), Harada and Nguyen (2009), Karathanassis and Chrysanthopoulou (2005), and

Short et al. (2002). The following are two sub-sections, first determined the research variables, and the second present the models used.

Research's Variables and Models

Dependent Variable

This study's dependent variable was the dividend policy, mainly used as the dividend payout ratio as a dividend policy proxy.

Dividends. By using the measurement used by Mehrani et al. (2011), Harada and Nguyen (2009), Karathanassis and Chrysanthopoulou (2005), and Short et al. (2002), the dividend measured as a sum of declared dividends for every ordinary share issued.

The researcher computes dividends per share (DPS) as the total amount of distributed dividends paid out over an entire year (including interim dividends but not including special dividends) divided by the number of outstanding shares.

DPS computed by applying the following equation:

$$DPS = \frac{(D - SD)}{S}$$

Where:

D -   Sum of dividends over a period (usually one year)

SD -   Special, one-time dividends

S -   Shares outstanding for the period

Independent Variables

The independent variables section contains the institutional and managerial ownership measured as follows.

Institutional ownership.

Institutional ownership is defined as the percentage of equity (shares) owned by institutional investors. The institutional block holder might play a role as a monitoring device on the corporation's executives or directors. Shleifer and Vishny's (1986) and Allen and Michaely's

79

(2001) demonstrated that large institutional investors are more willing and capable of monitoring or control corporate management than the minor and diffused shareholders.

For the purpose of the study, the researcher used Short et al. (2002) and Karathanassis and Chrysanthopoulou's (2005) definition of institutional ownership, which defined as the percentage of shares held by foreign and domestic institutional investors - mutual funds and investment trusts owning five percent (5%) or more equity for the period of 2011-2017. To answer the research questions RQ1-RQ4, the researcher used institutional ownership as a percentage. To answer the RQ5, the researcher followed the Short et al. (2002) empirical method, which utilized a dummy variable (INST), the value that takes one when the percentage of shares owned by institutional investors was more than the mean percentage of the sample and equals 0 otherwise.

By reviewing the previous studies of Moh'd et al. (1995), Han et al. (1999), Manos (2002), Abedelsalam et al. (2008), and Kouki and Guizani (2009), a positive relationship between dividend payout ratio and the percentage shares owned by institutional investors noticed. Hence, for institutional controlled corporations, we expected a high dividend payout.

Managerial ownership

The managerial ownership is defined as the total percentage of shares owned by the shareholders who take part in the corporation's management, either in the form of their natural existence or representation on the board of directors or through the form of performing managerial duties or through a combination of the two (Harada and Nguyen, 2009; Short et al., 2002; and Karathanassis and Chrysanthopoulou, 2005). To answer the research questions RQ1-RQ4, the researcher used institutional ownership as a percentage. While to answer the RQ5, the researcher follows the Short et al. (2002) empirical method utilized a dummy variable (MAN), which equals one when the percentage shares owned by executive or management was more than the mean percentage of the study sample and equals

0 otherwise. Manos (2002), Short et al. (2002), and Harada and Nguyen (2009) demonstrated a significant negative relationship between dividend payout ratio and managerial ownership.

The Additional Variables Used in the Study

This section involved the variables which used as an additional variable that related either to the dependent variable or to the independent variables, which include the earnings per share, firm's size, the future growth opportunity, leverage, and free cash flow; these examined as follows:

Earnings Per Share

The fundamental study investigated the relationship between earnings and dividend changes behavior was Lintner's (1956) stability theory. This stability theory assumed that corporations have a target payout ratio, and changes in earnings drive the issuing dividend changes. Corporations require maintaining efficient earnings management. At the same time, the corporation management is required to recognize the impact of the corporations' policies, thus that they can make the corporation's optimal potential decisions (Lev, 1989). An increase in the corporation's earnings leads to an increase in corporation value, while a drop in earnings leads to a decrease in corporation value.

The profit available to the equity shareholders on a per share basis, known as earning per share, or the amount that shareholders can gain on every stock. Earnings per share were measured by dividing the profits available to the equity shareholders (net income) by the number of shares outstanding. Earnings reflect a measure of the change or shift in the corporation's value to common shareholders through a period (Nichols & Wahlen, 2004). The correlation between earning per share and dividend per share is not a straight-line correlation as the percentage of earnings issued to the stockholders as paid dividends are not definite and fixed. Ahmed & Javid (2009), Al-Ajmi & Hussain (2011), and Nnadi et al. (2013) pointed

out evidence that there is a positive relationship between issuing dividends and earnings per share.

Munyua (2014) demonstrated that issuing dividends is a significant variable to any corporation for successful goal attainment to meet the shareholder's needs. Additionally, he pointed out that shareholders make investments in equity capital with anticipations of making profits in the form of dividends paid and capital gains. Consequently, corporations should make a good balance among dividends and retained earnings. Baker & Powell (2000) argued that the good financial performance of a corporation leads to the issue of high dividends distributed to shareholders.

By utilizing Lintner's (1956) model, Skinner (2006) investigated the developing association between earnings, dividends, and share repurchases over time and pointed out that the correlation weakens after 1980 credited to the declining management willingness to issue increased dividends. Additionally, Skinner (2006) demonstrated that the correlation between earnings and payout dividend was robust for the corporations that pay dividends and repurchases. Which supports that such corporations are now more expected to utilize repurchases to payout earnings increases; therefore, clarifying the increasing reluctance to increase dividends. In addition, Skinner (2006) pointed out that the strength of the correlation increased among earnings and payouts when the dividends and share repurchase were combined.

Musa (2009) tested the relationship between corporations' dividend policy and current earnings and pointed out that earnings had a significant positive effect on corporations' dividend policy. The results on the impact of earnings on issuing dividends supported the results of Fama & French (2001), who identified that different variables influence the corporation's issuing dividend, including, amongst others, earnings per share, investment opportunities, and firm's size.

Firm's size

Big corporations might have extra resources; therefore, they have the potential to perform responsibilities activities socially. Consequently, they might have the ability or the opportunity to reach what is called economic efficiency. The previous studies pointed out that the firm size's potential effect on the corporation's performance is unclear. For instance, in 1992, Smith and Watts documented that corporations with more total assets can have higher dividend payout ratios. However, Gadhoum (2000) proposed that the signaling efficiency of dividends decline for the larger corporations because larger corporations produce more information than smaller ones. Hence, the involvement of a firm's size may be preferable for a simple control variable, without a particular expected sign. As a result, the firms' size in this research was the natural log of total assets.

Based on the scholars' measurement, for instance, Beiner et al. (2006) and Chiang & Chia (2005), the natural log of total assets was applied as a proxy for the firm size.

$$Size_{i,t} = Ln\,(Total\ Assets)_{i,t}$$

Where:

$Size_{i,t}$: refers to the size of firm *i* for year *t*.

$(Total\ Assets)_{i,t}$: Refers to the total assets for firm *i* in year *t*.

$Ln\,(Total\ Assets)_{i,t}$: Refers to the natural log of total assets for firm *i* in year *t*.

Free cash flow (FCF)

According to Jensen's (1986) study, the hypothesis related to free-cash-flow proposed that if corporations have cash that exceeds their investment financing needs for positive net present value (NPV) projects, it is preferable to distribute excess cash as a dividend to minimize discretionary managerial funds, and as a result, avoiding agency costs of free-cash-flow.

Many scholars, for instance, Rozeff (1982), Jensen et al. (1992), and Mollah et al. (2000), pointed out evidence that may support the hypothesis stated by Jensen's (1986) with regards FCF. Hence, a positive relationship between the free-cash-flow and dividend payout ratio is expected. The development of the free-cash-flow measurement has developed from Crutchley's (1987) research that considered dividend policy as part of managerial decision-making. Furthermore, Alli et al. (1993) pointed out that paying dividends to be influenced by cash flow, which signals the corporation's ability to pay a dividend. They described FCF as the fund available to managers before discretionary capital investment decisions. Free-cash-flow comprises net income, depreciation, and the interest expense of the corporation. Needed capital expenditure is subtracted from these cash flows to account for investment in positive net present value projects.

Future growth opportunities

.   Not enough cash is available to be paid as a dividend, causing a negative relationship between dividend and growth opportunity. Rozeff (1982) and Amidu and Abor (2006) pointed out that the expected relationship between the projected growth and the dividend payout ratio is negative. Since corporations would rather avoid transaction costs of external financing sources, consequently, hold a more significant percentage of cash for financing purposes if they had growth opportunities. Following Lang and Litzinberger (1989), Gadhoum (2000), and Farinha's (2002) future growth opportunities are measured as the ratio of market to book value of equity (MTBV).

MTBV= Share Price Beginning of the year/ Net Asset Value per Share

Leverage (LEV)

According to Jensen and Meckling (1976), Jensen (1986), and Stulz (1990), a corporation's financial leverage has a vital function in scrutinizing managers' behavior

through diminishing the agency cost of conflict between the shareholders -managers, subsequently increasing value. Jensen (1986) summarized that debt utilization could diminish the necessary dividend to relieve the agency conflicts among shareholders and managers; therefore, the agency theory of free cash flow expects a negative relationship among debt and dividend. Additionally, some debt contracts contain shielding covenants limiting the payout. According to Kouki and Guizani (2009), financial leverage is described as the long-term debt deflated by the book value of equity. Hence, the current research expects a negative relationship between financial leverage and dividend payout.

$$D/E = \frac{TL}{SE}$$

Where:

- D/E: Debt to Equity Ratio
- TL : Total Liabilities
- SE: Shareholders' Equity

The Research's Models

Dividend Models

The research examined the potential relationship between ownership concentration and corporate dividend policy. According to Mehrani et al. (2011), Harada and Nguyen (2009), Short et al. (2002), and Karathanassis and Chrysanthopoulou (2005), two different empirical dividend models applied to test the assumed positive relationship among institutional ownership, managerial ownership, and dividend policy: the full adjustment model and partial adjustment model (Lintner, 1956). These empirical models are customized by adding interactive dummy variables to consider the expected impacts of institutional ownership, managerial ownership, and dividend policy (Easterbrook, 1984; Rozeff, 1982).

Many different empirical studies in the literature assumed a negative relationship among the previous variables (Agrawal & Jayaraman, 1994; Eckbo & Verma, 1994; Jensen et

al., 1992; Moh'd et al., 1995; Rozeff, 1982). The researcher assumed a positive relationship between the existence of institutional ownership and dividend payout ratio and a negative correlation between the presence of managerial ownership and dividend payout ratio.

The Full Adjustment Model (FAM)

To form the first empirical model, the researcher utilized dividend per share, earning per share (EPS), institutional ownership, and managerial ownership. It has been discussed that the existence of both institutional ownership and managerial ownership has a statistically significant relationship with corporation dividend policy. The theoretical framework relates the variation in paying the dividend to the variation in earnings, supposing that corporations adjust their dividend payout ratio merely if it is certain that the variation and earnings are constant and persistent in the future.

As stated by Short et al. (2001), if the corporation considered the change in earnings permanent and it has a desired payout ratio *r*, then the correlation between changes in earnings (*E*) and changes in dividends (*D*), for firm *i* at time *t*, will be given by the following formula:

$$D_{t,i} - D_{(t-1)i} = \alpha + r(E_{t,i} - E_{(t-1)i}) + \mu_{t,i} \qquad \text{a}$$

Where:

- $E_{(t-1)i}$: Earning Per Share of firm i at time t-1 (for the Previous Year)

- $E_{t,i}$: Earning Per Share of firm i at time t

- $D_{t,i}$: Dividend Per Share at time t

- $D_{(t-1)i}$: Dividend Per Share at t-1 (for the Previous Year)

- $\mu_{t,i}$:   is the error term

To examine the relationship of both institutional ownership and managerial ownership with the dividend policy, the researcher has utilized the interaction dummy method applying a dummy variable that takes one for the corporation having institutional ownership, otherwise

86

0. This dummy variable was utilized to compose the interaction dummy term injected into formula (a) as a further explanatory variable. Interaction dummy variables composed by multiplying the dummy variable by the variation in earnings $(E_{t,i} - E_{(t-1)i}) * INST$. A similar technique followed in composing the variable, which was applied in formula (a) to explore the relationship of managerial ownership and dividend policy. If the corporations have significant institutional ownership and, or managerial ownership may have a different r, then the formula (a) becomes as follows:

$$D_{t,i} - D_{(t-1)i} = \alpha + + r(E_{t,i} - E_{(t-1)i}) + r_I (E_{t,i} - E_{(t-1)i}) * INST + r_M (E_{t,i} - E_{(t-1)i}) * MAN + \mu_{t,i} \qquad \text{b}$$

Through inserting the additional variables that are related either to the dependent variable or the independent variables, which include the firms' size, free-cash-flow, future growth opportunities, and leverage, the researcher uses the exact specification as in Karathanassis & Chrysanthopoulou (2005) and Short et al. (2001), the reduced form becomes as follows:

$$D_{t,i} - D_{(t-1)i} = \alpha_0 + \alpha_1(E_{t,i} - E_{(t-1)i}) + \alpha_2(E_{t,i} - E_{(t-1)i})DINS + \alpha_3(E_{t,i} - E_{(t-1)i})DMAN + \alpha_4 Size_{t,i} + \alpha_5 Lev_{t,i} + \alpha_6 MTBV_{t,i} + \alpha_7 FCF_{t,i} + u_{t,i} \qquad \text{Model 1}$$

Where:

- $E_{t,i}$: Earning Per Share of firm i at time t

- $E_{(t-1)i}$: Earning Per Share of firm i at time t-1 (for the Previous Year)

- $D_{t,i}$: Dividend Per Share at time t

- $D_{(t-1)i}$: Dividend Per Share at t-1 (for the Previous Year)

- $DINS$: Is a dummy variable taking one if the ownership of a significant percentage of shares by institutional investors and zero, otherwise.

- $(E_{t,i} - E_{(t-1)i})DINS$: Is the interaction dummy term on institutional ownership.

87

- $DMAN$: Is a dummy variable taking one if the ownership of a significant percentage of shares by managerial and zero, otherwise.

- $(E_{t,i} - E_{(t-1)i})DMAN$: is the interaction dummy term on managerial ownership.

- $Size_{t,i}$: The firm's size is the natural log of total assets.

- $Lev_{t,i}$: The firm's financial leverage, which is measured by total liabilities deflated by shareholder equity.

- $MTBV_{t,i}$: The firm's future growth opportunities are measured as the ratio of market to book value of equity.

- $FCF_{t,i}$: The firm's free cash flow includes net income, depreciation, and the firm's interest expense of the firm i.

- α_i: Are to be estimated.

- $u_{t,i}$: Is the error term

Model 1 has been examined based on the hypotheses of a positive relationship between the institutional ownership and dividend payout ratio. In contrast, managerial ownership is anticipated to be negatively related to the dividend payout ratio. Consequently, the coefficient α2 was estimated to positively and statistically significant, and the coefficient α3 was estimated to be negative and statistically significant.

The Partial Adjustment Model (PAM)

To formulate the second empirical model, the researcher utilized dividend per share, earning per share (EPS), institutional ownership, and managerial ownership. It concluded that the existence of institutional ownership and managerial ownership has a significant statistical relationship with corporation dividend policy. The researcher utilized the interaction dummy method applying the dummy variable that takes one for the corporation having institutional ownership, otherwise 0. The theoretical framework relates the variation in dividend policy to

88

the variation in earnings, supposing that for any annum, t, the target level of dividend, $D_{t,i}^*$, for corporation i at time t associated with profits, $E_{t,i}$, by anticipated payout ratio, r may explain through using the same specification as in Karathanassis and Chrysapostolou (2005), and short et al. (2001):

$$D_{t,i}^* = rE_{t,i} \qquad (c)$$

Where:

- $D_{t,i}^*$: The target level of dividend for corporation i at year t.

- r: The optimal amount of dividend as a percentage of the profit for corporation i, its value will be between 0 and 1 because corporations usually do not distribute more dividends than profit.

- $E_{t,i}$: The profit for the corporation *i* earned at year *t*.

As the researcher used the same specification as in Karathanassis and Chrysapostolou (2005) and Short et al. (2001), if corporations with significant institutional ownership and, or managerial ownership have a various r, then the formula (c) becomes:

$$D_{t,i} - D_{(t-1)i} = \alpha + c\left(D_{t,i}^* - D_{(t-1)i}\right) + u_{t,i} \qquad (d)$$

Where

- $D_{t,i}$: Dividend Per Share at time t.

- $D_{(t-1)i}$: Dividend Per Share at t-1 (for the Previous Year).

- α ; *I*s a coefficient representing the reluctance of managers to cut dividends.

- c : Is the speed of an adjustment coefficient to the desired level of dividend distribution.

- $D_{t,i}^*$: The target level of dividend for firm i at year t.

- $u_{t,i}$: Is the error term

To test the relationship between managerial and institutional ownership on dividend policy, the researcher utilized the interaction dummy techniques (dummy variable) that equal

89

one for corporations experiencing institutional ownership, otherwise equal zero. This dummy variable was used to hypothesize the interaction dummy term injected to formula (d) as a supplementary explanatory variable.

An interaction dummy variable is formed by multiplying the dummy variable by the profit or earnings $E_{t,i}$. The same used to form the variable was utilized in the formula (d) to test the relationship between managerial ownership and dividend policy. Through adding new interaction dummy terms of institutional and managerial ownership, the model may be re-structured as follows by supposing that corporations have various target payout ratios (r), formula (d) turn out to be:

$$D_{t,i} - D_{(t-1)i} = \alpha_0 + c\alpha_1 E_{t,i} + c\alpha_2 E_{t,i} DINS + c\alpha_3 E_{t,i} DMAN - cD_{(t-1)i} +$$

$$\alpha_4 Size_{t,i} + \alpha_5 Lev_{t,i} + \alpha_6 MTBV_{t,i} + \alpha_7 FCF_{t,i} + u_{t,i} \qquad \text{Model 2}$$

Where:

- $D_{t,i}$: Dividend Per Share at time t

- $D_{(t-1)i}$: Dividend Per Share at t-1 (for the Previous Year)

- $E_{t,i}$: Earning Per Share of the corporation i at time t

- $DINS$: is a dummy variable taking one if the ownership of a significant percentage of shares by institutional investors, otherwise zero.

- $E_{t,i}DINS$: is the interaction dummy term on institutional ownership.

- $DMAN$: is a dummy variable taking one if the ownership of a significant percentage of shares by managerial, otherwise zero.

- $E_{t,i}DMAN$: is the interaction dummy term on managerial ownership.

- $Size_{t,i}$: Is the natural log of total assets

- $Lev_{t,i}$: Financial leverage, which is measured by total liabilities deflated by shareholder equity.

- $MTBV_{t,i}$: Future growth opportunities measured as the ratio of market to book value of equity

- $FCF_{t,i}$: Is free cash flow, which consists of net income, depreciation, and the interest expense of the firm i

- $u_{t,i}$: Is the error term

- α_i: Is to be estimated.

As it appears in Model 2, the researcher deviates from Karathanassis and Chrysapostolou (2005) and Short et al. (2001) through adding the additional variables to the model to test the proposed relationship between the dependent variable and the additional variable, $Size_{t,i}$, $Lev_{t,i}$, $MTBV_{t,i}$ and $FCF_{t,i}$. It is a known research item that institutional (managerial) ownership is expected to be positively (negatively) related to the dividend payout ratio. Model (2) has been examined through the hypotheses of a positive relationship between institutional ownership and dividend payout ratio. In contrast, a negative correlation between managerial ownership and dividend payout ratio was expected. Therefore, the coefficient α2 was estimated to be statistically significant and positive, and the coefficient α3 was expected to be statistically significant and negative.

To test the two models, the researcher used the STATA software to test the proposed relationship. The researcher utilized the techniques of pooled and panel data analysis. Greene (2003) and Gujarati (2003) demonstrated that panel data analysis is usually expected by fixed and random effects methods.

Study Validity

Using the quantitative research design, researchers should consider study validity. The validity of research consists of both external and internal validity. External validity contains events that may affect the study's result if the investigator neglects to maintain control. Internal validity represents the degree to which the research findings may explain verification

91

of a causal correlation among two factors (Zellmer-Bruhn et al., 2016).

In the quantitative method, internal validity is explained through the right selection of subjects participants to be examined, with a research population determined by precise selection standards, with a description of how the researcher has calculated the sample size and of the sampling method for the inclusion of the subjects of the investigation. The intent to maintain internal validity is to avert the researcher's selection bias. Moreover, it is vital to identify the specific variables to be measured to answer the research questions. In this study, the researcher identified and took care of the internal validity threats by using models to detect the relationship between the study's variables and used specific instruments to measure the dependent, independent, and controls variables' values.

Statistical conclusion validity refers to using suitable statistics to formulate inferences regarding the correlation between dependent and independent factors (Lachmann, Trapp, & Trapp, 2017). Limitation to the statistical conclusion validity contains any type I errors which occurs when investigators discover relationship when not exists, and type II errors that result when investigators discover that no relationship exists when in actuality one does (Taylor & Spurlock, 2018). Three different aspects influence statistical conclusion validity, including the instrument's reliability, data assumptions, and sample size.

Additionally, the researcher in this study identified and took care of the internal validity threats that may be developed from the data collected and the tools utilized for collecting the data. To avoid internal validity in Microsoft Excel, as the data generated keeps changing through the calculations, the researcher copied the raw data on multiple files to ensure the data was not lost for further analysis.

Additionally, to make sure there were no problems of multicollinearity, the researcher run the Variance Inflation Factor (VIF) for variables included in Model 1 and Model 2. Multicollinearity is a problem that appears when regression analysis shows a high correlation

of at least one independent factor with a combination of the other independent variables. The variance inflation factor (VIF) and tolerance have been employed to measure multicollinearity when the researcher ran multiple regression. If the VIF value exceeds 4.0 or by tolerance less than 0.2, there is multicollinearity (Hair et al., 2010). The maximum acceptable level of VIF is 10. A VIF value over 10 is a clear signal of multicollinearity.

Data Collection Procedures

To accomplish the research goals, the researcher collected the data used to examine the stated models manually from different public sources such as the Amman Stock Exchange (https://www.ase.com.jo/en), The Jordanian Securities Commission (https://www.jsc.gov.jo/default/en), and Jordanian Securities Depository Center (https://www.sdc.com.jo/english/) websites for the period from 2011to 2017. First, the researcher identified the corporations included in the sample, depending on the sample selection section's selection criteria. Secondly, the researcher collected the data regarding the number of shares outstanding, the dividend amounts paid, the earnings at the end of the year, net income, total assets, total liabilities, total owner equity, total shares owned by managements, total shares owned by institutional investors, and the stock price at the end of the year.

The researcher collected the preliminary data and stored it in Excel sheets extracted from the corporation's balance sheets and income statements. Then, the researcher did calculations for the values related to the variables utilized in the study. The researcher did the calculations by using Excel sheets.

Data Analysis Procedures

A statistical software, STATA, was used to test the relationships between the study's variables using archival data collected from the published corporations' annual reports to perform statistical analysis. The researcher used STATA software to test the models used in

this study to analyze the study data. The research utilized the techniques of pooled and panel data analysis. Usually, panel data analysis is expected by fixed and random effects methods (Greene, 2003; Gujarati, 2003), while pooled data is examined through Ordinary Least Square (OLS) regression. In the pooled model, observations put together the regression coefficients illustrate the overall effect with no specific time or individual aspect. Conversely, OLS is applicable for assessing coefficients only if no individual (corporation) or time-specific influences occur. If they do, the undetected importance of the unobserved corporation and time-specific factors on the dependent variable may be presented by utilizing one of the panel data methods (Gujarati, 2003).

The fixed-effect model permits control for unobserved heterogeneity that defines individual-specific influences not noticed by observed variables. In contrast, the random-effects model is notified by the error term comprising a specific individual and an overall element. The heterogeneity may be tested by applying the Generalized Least Squares (GLS) method since the GLS method considers the error term's various correlation structures in the random-effects model (Gujarati, 2003).

To determine the most appropriate method, the researcher used Breusch and Pagan's (1980) technique. Breusch and Pagan's technique examined random-effects models versus the pooled model using the null hypothesis that the cross-sectional variance components values are zero. A significant Breusch and Pagan's technique rejected the null hypothesis and proposed that the individual influence was not equal to zero. Moreover, the estimated coefficients produced through the pooled model are inconsistent. The Hausman test was applied to differentiate fixed effects from the random-effects model. Under the null hypothesis, the coefficients, projected by the efficient random effects estimator, are identical to the ones expected by the consistent fixed effect estimator. On the other hand, the null hypothesis's rejection assumes that fixed effects estimations are more suitable than random

effects estimations.

Ethical Considerations and Procedures

Personal integrity is a requirement in conducting ethical research. In general, when ethics are addressed in the study design, the researcher usually cares first about protecting the participant's rights. Therefore, the researcher must design the research to protect the participant from suffering physical harm, discomfort, pain, embarrassment, or loss of privacy (Cooper and Schindler, 2008). Due to the nature of the data set, i.e., archival and panel, there was no human participant included in the research process, and therefore this did not apply for the current research. One of the most ethical issues that arise when conducting research with a human subject is informed consent and site permission. Informed consents means providing potential study participants with all the information they need about the study and what their participation will involve (Stanger, 2014). Informed consent and site permission were not an issue because there was no human subject of the research. Moreover, publicly audited reports published online cannot be deceived or mistreated. Additionally, no special permission was required to use the Jordanian corporations' publicly audited reports because these reports were published online with free access to use and download.

Despite the non-involvement of the human participants, researchers should consider ethical issues even if they conduct a nonexperimental study. One of the ethical issues related to conducting research is that the researcher should suggest that the design must be most appropriate for the research problem (Cooper and Schindler, 2008). Consequently, the correlational research design was the best design to use to the best of the researcher's knowledge. Therefore, the ethical considerations appear in many stages when writing research and should be considered. In data collection, ethical procedures are connected to a sufficient sample size, lack of manipulation, and the employment of as many independent variables (predictors) as possible (Vogt et al., 2014). To solve that issue, the researcher used a

95

sample of 37 corporations and used two independent variables and four control variables. In data analysis, investigators need a perfect statement of results to contain effect size and the use of appropriate statistics. In writing and presenting research, the write-up includes a statement about relationships between variables instead of presenting cause-effect, a willingness to share data, and publishing in scholarly journals.

The ethical researcher usually follows the conditions and rules of analysis for the results to be correct. Also, the researcher must report the study findings in a manner that minimizes the drawing of false conclusions. To present the data objectively, the researcher must utilize tables, graphs, and charts. At all times, the researcher protected the collected documents and data. The researcher kept all study data confidential and in a secured location at home.

Furthermore, encrypted USB drives and physical documents were stored in a locked safe. The locked safe is located at TCF Bank Branch - Chicago Ridge, IL. After the study was completed, the researcher transferred the USB drives and physical document to a safety deposit box and it will be stored there for seven years. The researcher is the only authorized user of the box's access keys. According to the National Institute of Standards and Technology guidelines for media sanitization, the destroy method is one of the sanitization methods (Kissel et al. 2014). After seven years, the researcher will destroy the USB drives and documents by shredding the documents and burning the USB drives for a minimum of two minutes. Additionally, the researcher took precautions to maintain the privacy of the organization's subject of the study by not mentioning the names of the corporations used in the study. Furthermore, data were reported in an aggregated form.

Summary of Research

In this chapter, the researcher presented the study processes and procedures used to perform the study. The researcher presented the rationale for selecting a quantitative method

and correlational design with running a multi-regression analysis. The researcher outlined the research setting, sampling selection criteria, data sources, the instruments for dependent, independent, and additional variables, and the models used in the research. The study's validity and reliability was described and the data collection and analysis procedures were explained in detail. Finally, the researcher clarified the ethical considerations and procedures used in conducting the research.

Chapter 4

Data Results and Analysis

The relationship between ownership structure and dividend policy has been examined extensively during the past decades. The purpose of this quantitative correlation study was to examine the relationship between dividend policy as a dependent variable measured by the

corporations' dividends payout ratio and ownership concentration using (institutional ownership and managerial ownership) as independent variables. The researcher used additional variables because they are related to the dependent variable or the independent variables, including the firms' size, free-cash-flow, future growth opportunities, and leverage. In this chapter, the researcher presents the data results, descriptive statistics, data analysis procedures, and hypothesis testing, testing of the research question, data findings, and the study's findings. Additionally, there were no modifications made during the process of collecting and analyzing data.

Data Results

The researcher utilized a set of panel data collected from publicly published corporate annual reports records. The Amman Stock Exchange, Jordanian Securities Depository Center, and Jordanian Securities Commission websites were used to download the necessary data regarding the variable's values. The sample consisted of 37 corporations divided between 20 corporations listed in the service sector and 17 corporations listed in the industrial sector listed in the Amman Stock Exchange during the period of the study from 2011 to 2017. The total number of observations used in the analysis was 259.

According to Hair et al. (2010), the necessary steps before conducting any further data analysis consist of screening, editing, and preparing preliminary data. To answer the research questions and before the actual statistical analysis, the researcher evaluated the parametric analysis assumptions.

As Kline (2005) stated, kurtosis and skew measures can decide if the study variables' data met normality assumptions. Measures of kurtosis assist researchers in determining if a curve is normal or abnormally shaped. The result of both positively and negatively skewed is a normal asymmetrical curve. According to Hair et al. (2010) and Byrne (2010), the variables' data is considered normal if skewness is between -2 to +2, and kurtosis is between -7 to +7.

To answer the research question RQ5, the researcher utilized Lintner's 1956 corporate dividend policy models, that is the full and the partial adjustment model. The models used were modified to adapt the proxies representing the institutional ownership and managerial ownership.

- The Full Adjustment Model

According to Lintner (1956), if earnings changes are considered permanent, and a corporation has a desired payout ratio *r*. The correlation between changes in earnings (*E*) and changes in dividends (*D*), for corporation *i* at time *t*, will be given by the following equation:

$$D_{t,i} - D_{(t-1)i} = \alpha + r(E_{t,i} - E_{(t-1)i}) + \mu_{t,i}$$

If we assume that corporations with significant institutional ownership and, or managerial ownership may have a different *r*, then the model becomes as follows:

$$D_{t,i} - D_{(t-1)i} = \alpha + + r(E_{t,i} - E_{(t-1)i}) + r_I (E_{t,i} - E_{(t-1)i}) * INST + r_M (E_{t,i} - E_{(t-1)i})$$
$$* MAN + \mu_{t,i}$$

Through insert the additional variables that are related either to the dependent variable or the independent variables, which include the firms' size, free-cash-flow, future growth opportunities, and leverage, the reduced form becomes as follows:

$$D_{t,i} - D_{(t-1)i} = \alpha_0 + \alpha_1(E_{t,i} - E_{(t-1)i}) + \alpha_2(E_{t,i} - E_{(t-1)i})DINS + \alpha_3(E_{t,i} -$$

$$E_{(t-1)i})DMAN + \alpha_4 Size_{t,i} + \alpha_5 Lev_{t,i} + \alpha_6 MTBV_{t,i} + \alpha_7 FCF_{t,i} + u_{t,i}$$ Model 1

Where:

- $E_{t,i}$: Earning Per Share of firm i at time t

- $E_{(t-1)i}$: Earning Per Share of firm i at time t-1 (for the Previous Year)

- $D_{t,i}$: Dividend Per Share at time t

- $D_{(t-1)i}$: Dividend Per Share at t-1 (for the Previous Year)

- *DINS*: Is a dummy variable taking one if the ownership of a significant percentage of shares by institutional investors and zero, otherwise.

99

- $(E_{t,i} - E_{(t-1)i})DINS$: is the interaction dummy term on institutional ownership.

- $DMAN$: Is a dummy variable taking one if the ownership of a significant percentage of shares by managerial and zero, otherwise.

- $(E_{t,i} - E_{(t-1)i})DMAN$: is the interaction dummy term on managerial ownership.

- $Size_{t,i}$: The firm's size is the natural log of total assets.

- $Lev_{t,i}$: The firm's financial leverage, which is measured by total liabilities deflated by shareholder equity.

- $MTBV_{t,i}$: The firm's future growth opportunities are measured as the ratio of market to book value of equity.

- $FCF_{t,i}$: The firm's free cash flow includes net income, depreciation, and the firm's interest expense of the firm i.

- α_i: Are to be estimated.

- $u_{t,i}$: Is the error term

- The Partial Adjustment Model (PAM)

According to Lintner (1956), the assumption of the Partial Adjustment Model is for any year, *t*, the target level of dividend, D^* for the corporation, *i*, is related to profits, $E_{t,i}$ by the desired payout ratio, *r*:

$$D^*_{t,i} = r\, E_{t,i}$$

If corporations with significant institutional ownership and or managerial ownership have different *r*, then the model becomes:

$$D^*_{t,i} = r\, E_{t,i} + r_I\, E_{t,i} * INST + r_M\, E_{t,i} * MAN$$

In any given year, the corporation adjusts only partially to the target dividend level. Thus:

$$D_{t,i} - D_{(t-1)i} = \alpha + c\, (D^*_{t,i} - D_{(t-1)i})$$

Where:

α : A constant representing the resistance of management to reduce dividends

100

c: Equal the "speed of adjustment coefficient" representing the extent to which the management wishes to "play-safe" by not adjusting to the new target immediately. Substitution yields the following reduced form:

$$D_{t,i} - D_{(t-1)i} = \alpha + crE_{t,i} + cr_I\,E_{t,i} * INST + cr_M\,E_{t,i} * MAN - cD_{(t-1)i} + \mu_{t,i}$$

Through inserting the additional variables that are related either to the dependent variable or the independent variables, which include the firms' size, free-cash-flow, future growth opportunities, and leverage, the reduced form becomes as follows:

$$D_{t,i} - D_{(t-1)i} = \alpha_0 + c\alpha_1\,E_{t,i} + c\alpha_2\,E_{t,i}DINS + c\alpha_3\,E_{t,i}DMAN - cD_{(t-1)i} +$$

$$\alpha_4 Size_{t,i} + \alpha_5 Lev_{t,i} + \alpha_6 MTBV_{t,i} + \alpha_7 FCF_{t,i} + u_{t,i} \qquad \text{Model 2}$$

Where:

- $D_{t,i}$: Dividend Per Share at time t

- $D_{(t-1)i}$: Dividend Per Share at t-1 (for the Previous Year)

- $E_{t,i}$: Earning Per Share of the corporation i at time t

- $DINS$: Is a dummy variable taking one if the ownership of a significant percentage of shares by institutional investors, otherwise zero.

- $E_{t,i}DINS$: Is the interaction dummy term on institutional ownership.

- $DMAN$: Is a dummy variable taking one if the ownership of a significant percentage of shares by managerial, otherwise zero.

- $E_{t,i}DMAN$: is the interaction dummy term on managerial ownership.

- $Size_{t,i}$: Is the natural log of total assets

- $Lev_{t,i}$: Financial leverage, which is measured by total liabilities deflated by shareholder equity.

- $MTBV_{t,i}$: Future growth opportunities measured as the ratio of market to book value of equity

- $FCF_{t,i}$: Is free cash flow, which consists of net income, depreciation, and the interest expense of the firm i

- $u_{t,i}$: Is the error term

- α_i: Is to be estimated.

The researcher applied three different statistical analysis techniques to test Models 1 and 2: The Pooled, fixed, and Random effects. Furthermore, the researcher used Breusch and Pagan's technique to examine the random-effects models versus the pooled model using the null hypothesis that the cross-sectional variance components values were zero. Also, the Hausman test was applied to differentiate fixed effects from the random-effects model. Under the null hypothesis, the coefficients projected by the efficient random effects estimator were identical to the ones projected by the consistent fixed effect estimator.

Descriptive Statistical Analysis

In the first step in the analysis process, the researcher runs the descriptive statistic for the variables' data related to the research question RQ1, R2, RQ3, and RQ4. The following table (4) presents the descriptive statistics for each of the variables data under examination.

Table 4

Descriptive Statistics

Variable	N	Mean	Std. Deviation	Skewness Statistic	Std. Error	Kurtosis Statistic	Std. Error
$D_{(t,i)}$	259	.094	.169	4.650	.151	25.368	.302
$E_{(t,i)}$	259	.099	.242	2.382	.151	11.351	.302
MAN	259	.504	.243	.014	.151	-.844	.302
INST	259	.381	.278	.295	.151	-.999	.302
LEV	256	.708	.766	5.159	.152	40.886	.303
MTBV	259	.874	.841	3.768	.151	19.549	.302
FCF	259	3,376,195.66	6564559.710	3.986	.151	20.367	.302
Size	259	7.365	.548	-.554	.151	.230	.302
Valid N (listwise)	256						

102

Where:

- $D_{(t,i)}$: Dividend pay-out ratio
- $E_{(t,i)}$: Earning per share.
- MAN: Measured by the summation of the total percentage of equity held by the shareholders that take part in the firm's management, either through their natural presence or representation in the Board of Directors or through the undertaking of managerial tasks –or through a combination of the two.
- INST: Total percentage of shares held by foreign and domestic institutional investors - mutual funds and investment trusts owning 5% or more equity.
- Lev: Is the Leverage which is measured as long-term debt deflated by the book value of equity,
- MTBV: Is measured as the ratio of market to book value of equity,
- FCF: Is measured as the funds available to managers before discretionary capital investment decisions. FCF includes net income, depreciation, and the interest expense of the firm.
- Size: Is the firm's size, which is measured as a natural log of total assets

With regard to the dependent variable, Table 4 presents the *mean* dividend payout ratio $D_{t,i}$ was 0.094, and the standard deviation was 0.169. The skewness and the kurtosis for the dividend payout ratio were 4.650 and 25.368, respectively. According to Hair et al. (2010) and Byrne (2010), the variables' data is considered normal if skewness is between -2 to +2, and kurtosis is between -7 to +7. Since some corporations did not distribute dividends every year, the normality distribution test for variable $D_{t,i}$ had a large positive skew. The peak values were to the left or right of the average or *mean* value, and the standard deviation was very high. That is because of the nature of the variables itself.

On the other hand, in Table 4, with regards to the independent variable, the institutional ownership variable (INST), which was computed by foreign and domestic institutional investors' total percentage of shares, mutual funds, and investment trusts, owns 5% or more equity the *mean* of the INST was 0.381. The standard deviation was 0.278, which

implied that almost 38.1% of shares ownership was concentrated in the hand of investors who have 5% or more in the capital of corporations among Jordanian corporations. Also, the skewness was 0.295, and the kurtosis was -.999.

For the managerial ownership (MAN), which is measured by the summation of the total percentage of equity held by the shareholders that took part in the firm's management, either through their natural presence or representation in the board of directors or through the undertaking of managerial tasks or through a combination of both, Table 4 presents the *mean* was 0.504. The standard deviation was 0.243, which implied that almost 50.4% of shares ownership was concentrated in the hands of investors who took part in the firm's management among Jordanian corporations.

Additionally, with regards to the additional earning per share $E_{t,i}$ Table 4 presents the following: the *mean* earnings per share $E_{t,i}$ was 0.099, and the standard deviation was 0.242. The skewness and the kurtosis for the earnings per share were 2.382 and 11.351, respectively. For the leverage ratio (LEV), measured as the long-term debt deflated by the book value of equity, Table 4 presents the *mean* as 0.708, the standard deviation as 0.766, the skewness as 5.159, and the kurtosis was 40.886.

For the future growth opportunity measured by the Market to Book value ratio (MTBV), Table 4 presents the mean as 0.874%, the standard deviation as 0.841, the skewness as 5.159, and the kurtosis as 40.886. For the firm's size measured by taking the natural log of the corporation's total assets, Table 4 presents the *mean* as 7.365, the standard deviation as 0.548, the skewness as -0.554, and the kurtosis as 0.230. For the Free Cash Flow (FCF), which was measured by the fund available to managers before discretionary capital investment decisions), Table 4 presents the *mean* as 3,376,195.66, the standard deviation as 6564559.710, the skewness as 3.986, and the kurtosis as 20.367. The free cash flow consisted of net income, depreciation, and the interest expense of the corporation. Needed capital

expenditure was subtracted from the cash flows to account for investment in positive net present value projects.

Normality Test For The Research's Variables

All statistical investigations or tests have certain assumptions, and for multiple regression analysis contain tests for the assumption of normality (Jeong & Jung, 2016; Zientek et al., 2016). Jeong & Jung (2016) demonstrated that the researcher could examine the linearity of the data by observing the scatter plots visually. Additionally, the normality distribution of factors is theoretical to be normal or bell-shaped. Outliers might significantly affect the outcomes of regression analysis, and utilizing a histogram assists in determining any outliers (Hannigan & Lynch, 2013).

Measuring normality distribution of variables data was performed through using the Shapiro-Wilk test and Kolmogorov-Smirnov (Table 5) to examine the normality of the dependent variable and the normality of the independent variables, including institutional ownership (INST) and managerial ownership (MAN). The additional independent variables include Free Cash Flow (FCF), Market to Book Value ratio (MTBV), Firm Size, and Leverage. Table 5 presents the Shapiro-Wilk test for the variables used in the study.

Table 5

Results of the Normality Test for the Variables RQ1-RQ4

Variable	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
$D_{(t,i)}$	.289	256	.000	.498	256	.000
$E_{(t,i)}$	.166	256	.000	.777	256	.000
MAN	.070	256	.004	.977	256	.000
INST	.100	256	.000	.942	256	.000
LEV	.192	256	.000	.615	256	.000
MTBV	.198	256	.000	.642	256	.000
FCF	.227	256	.000	.585	256	.000
Size	.085	256	.000	.970	256	.000

a. Lilliefors Significance Correction

105

Additionally, the following charts present the histogram chart with the normal curve for the study's variables.

Figure 1

The histogram chart with the normal curve for the Dividend payout ratio ($D_{t,i}$)
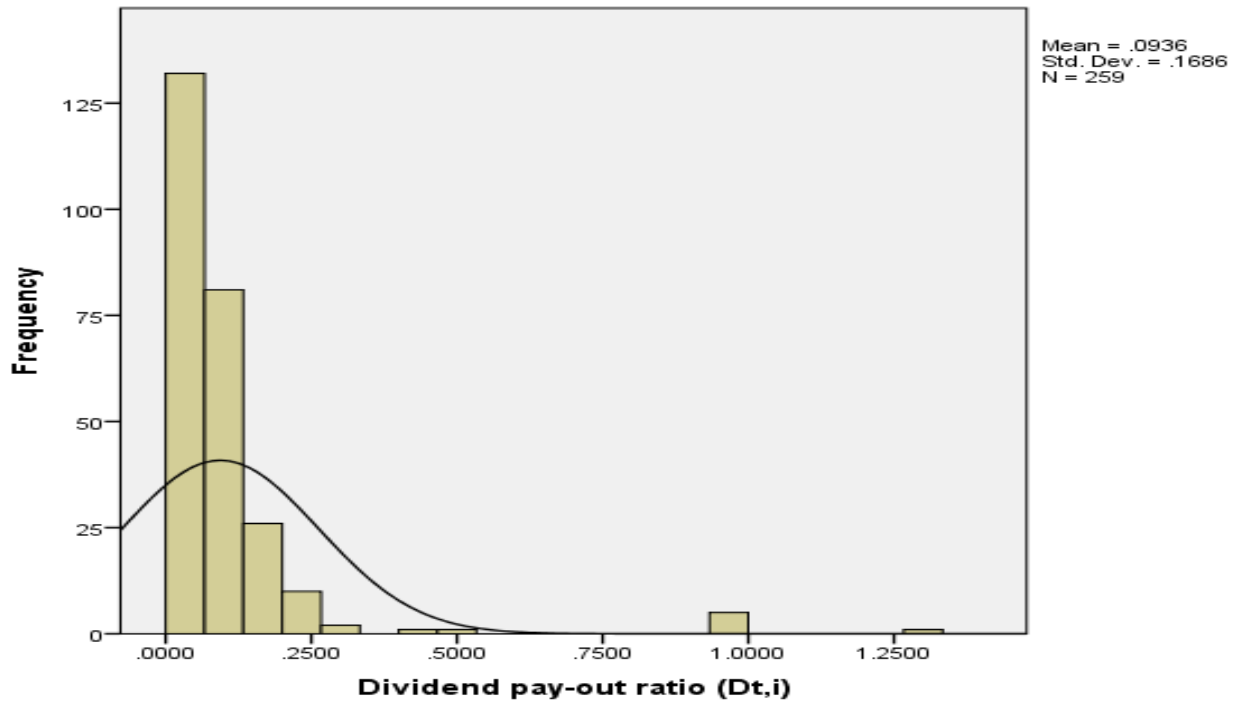
Figure 2

The histogram chart with a normal curve for the Earning per share ($E_{t,i}$)
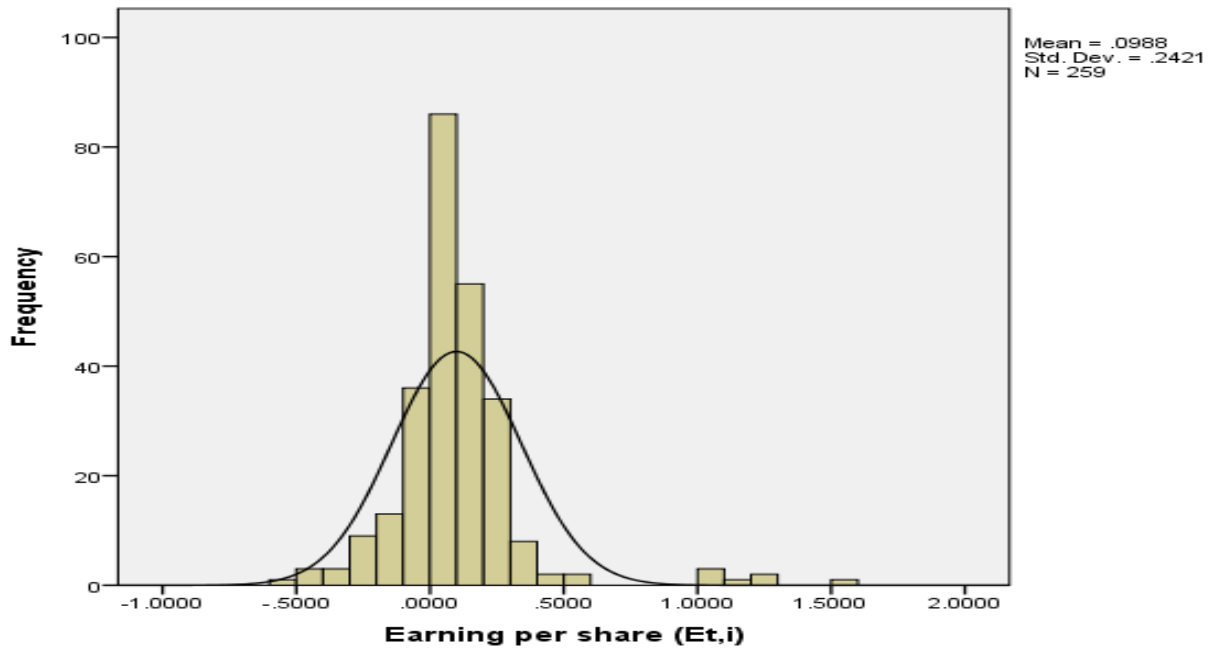
Figure 3

The histogram chart with the normal curve for the Percentage of Managerial
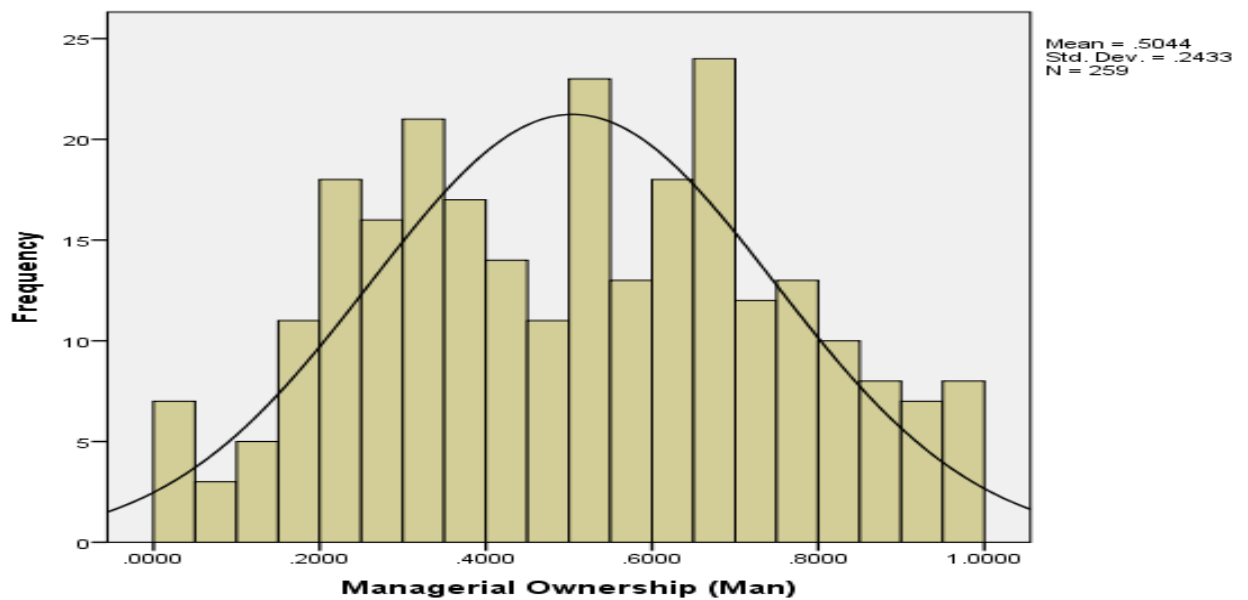
Ownership (MAN)

Figure 4

The histogram chart with a normal curve for the Percentage of Institutional

Ownership (INST)

107
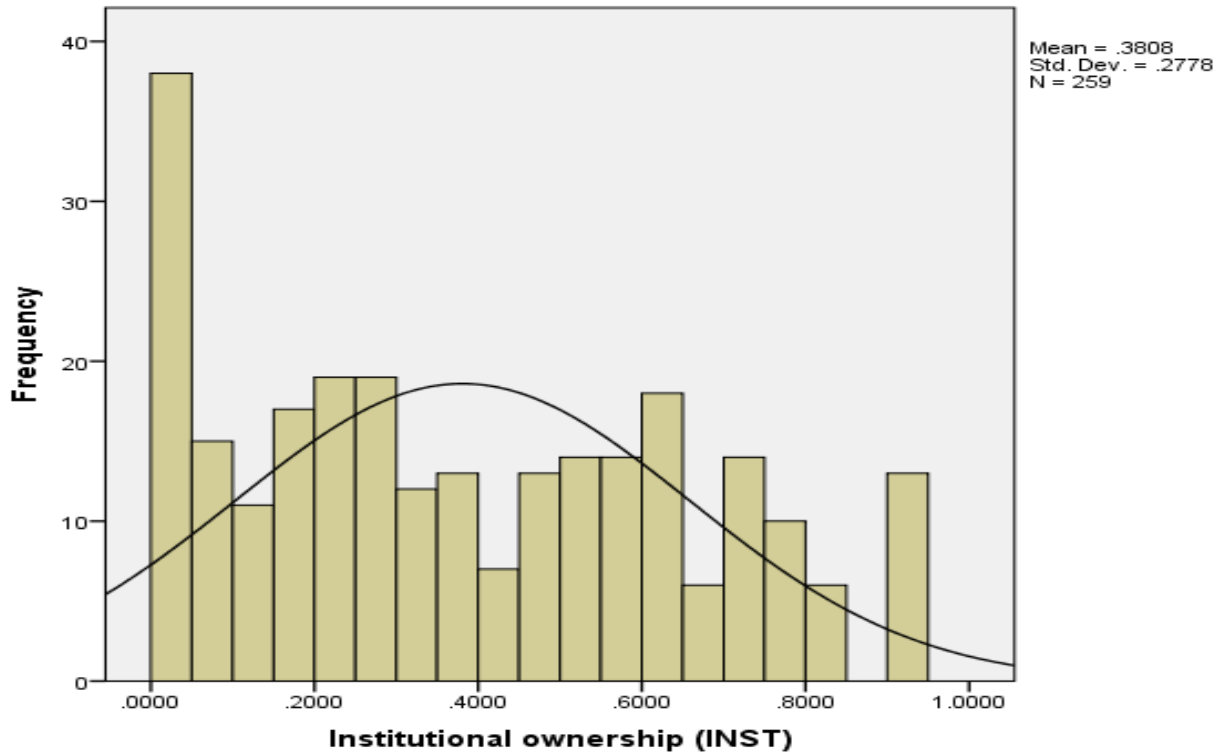
Figure 5

The histogram chart with a normal curve for the Leverage ratio (LEV)
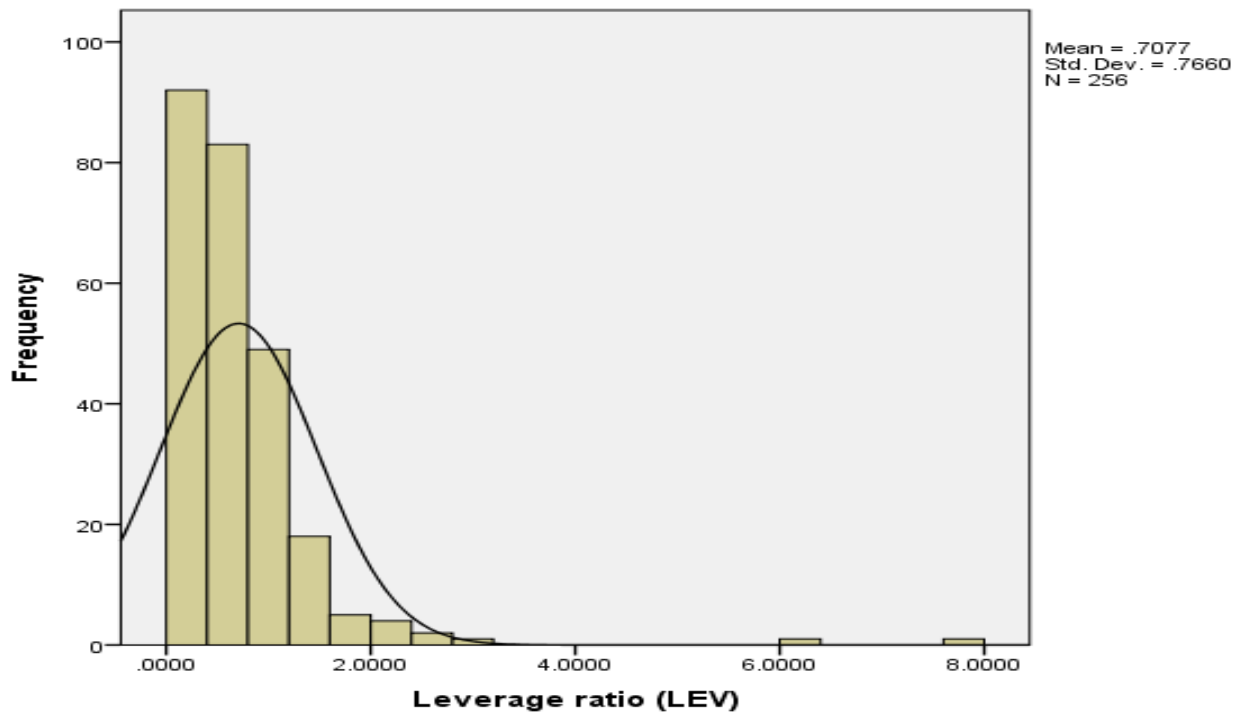
Figure 6

The histogram chart with the normal curve for the Market to Book value ratio

(MTBV)

Mean = .8737
Std. Dev. = .8414
N = 259
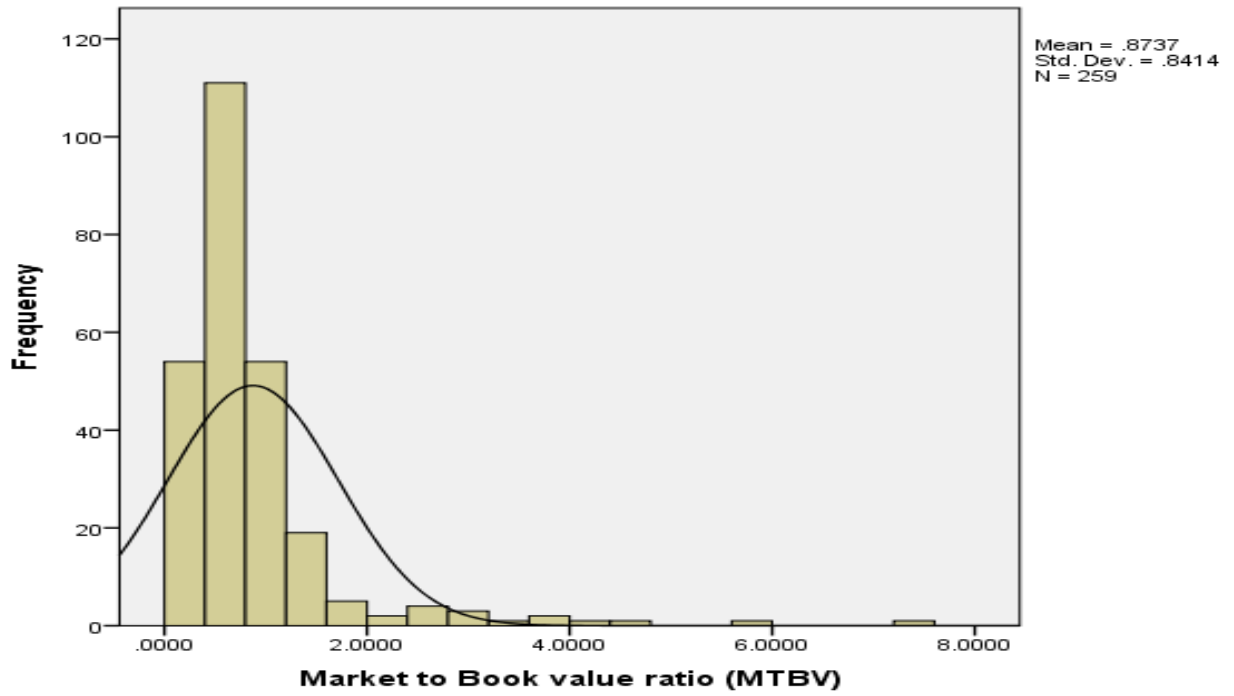
Figure 7

The histogram chart with the normal curve for the Firm's Size
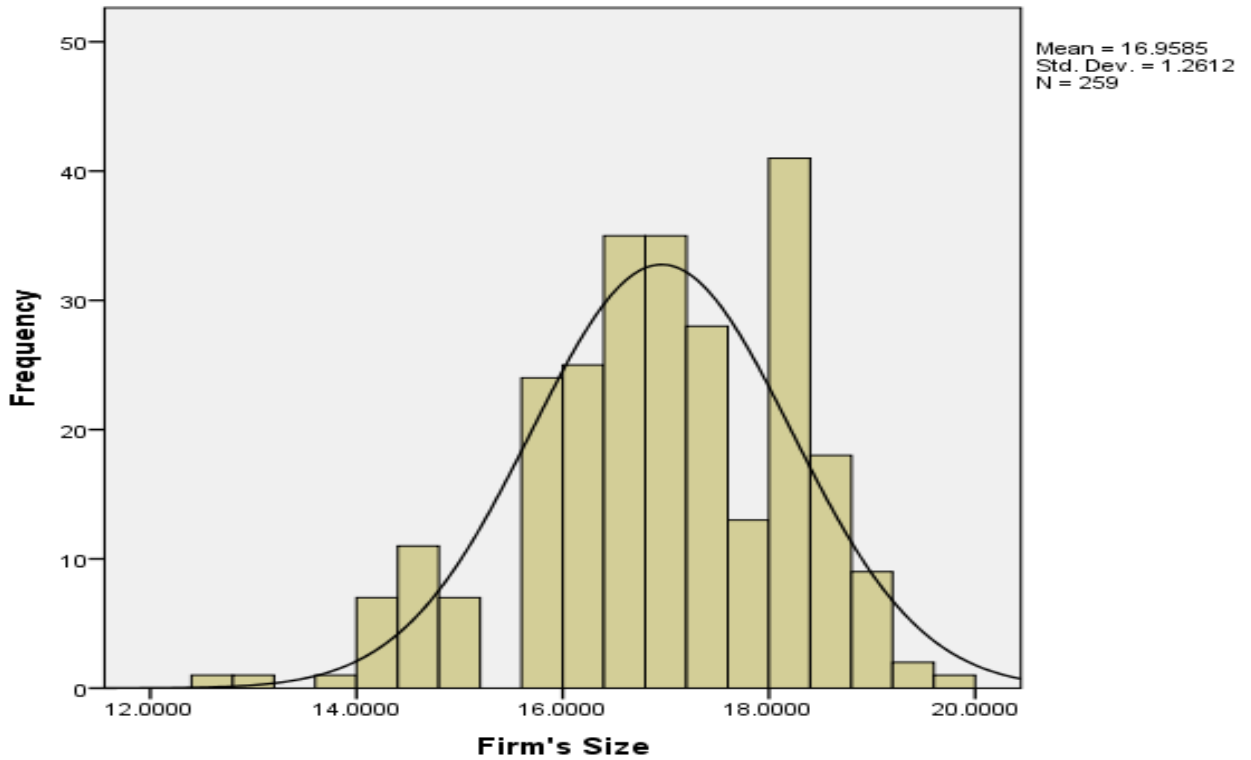
Figure 8

The histogram chart with the normal curve for the Firm's Size
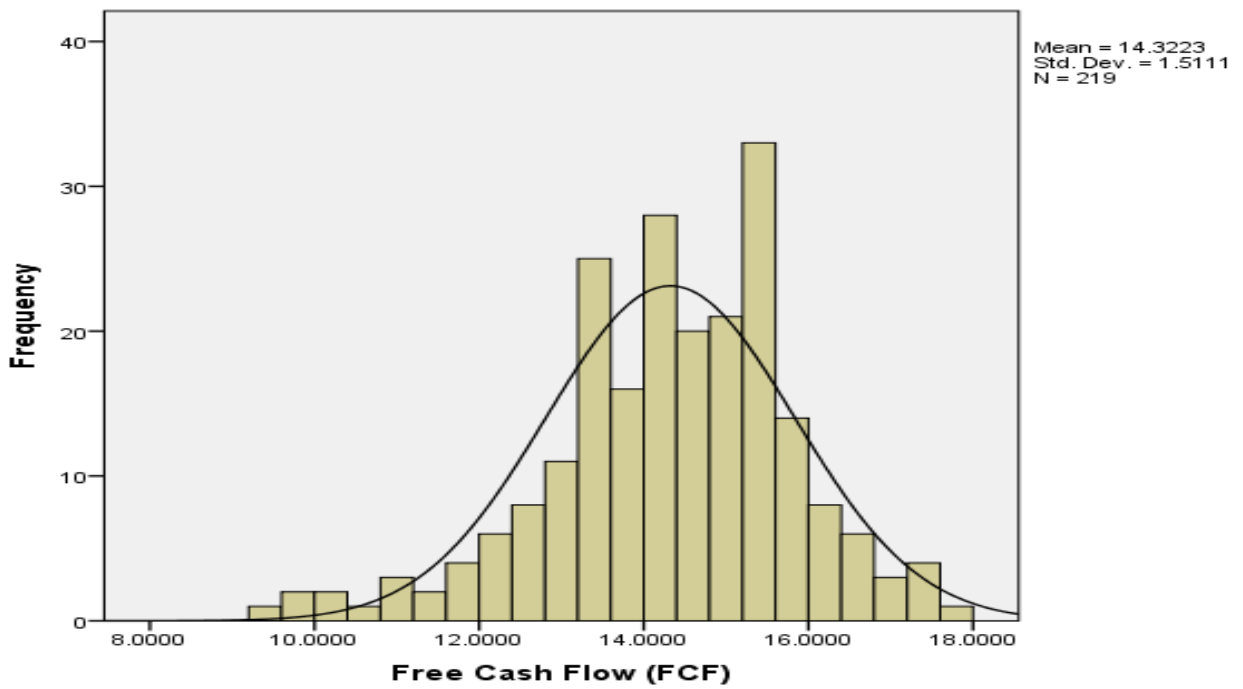
Based on the normality test of the variables used, the parametric analysis is not

suitable to answer the research questions RQ1-RQ4; therefore, the non-parametric analysis is

110

used to examine the proposed relationship between the research variables. Nonparametric tests using Spearman's *rho* are appropriate for continuous data and depend on the data values' ranks. Because of this, nonparametric tests are independent of the scale and the distribution of the data.

Spearman's *rho* is one of the non-parametric tests used to examine the correlation between the variables (Sprent & Smeeton, 2001). The coefficient is usually denoted by the Greek letter ρ (*rho*), possible (r_s) values of a correlation coefficient should lie between (1, -1), (Sprent & Smeeton, 2001). If the (r_s) value is zero, it means there is no relation. At the same time, 1 or -1 present a perfect correlation between the variables, and the sign of the correlation indicates the direction of the relationship (positive, negative). Additionally, to report the effect size, the researcher used Cohen's (1988) effect size guidelines. If it is from .10 to < .30 it means small effect, while from .30 to < .50 means medium effect, and .50 or greater means a large effect.

Hypothesis Testing

In this section, the researcher collects the study's hypotheses using statistical data analyses and techniques. In the following section, data analysis procedures are presented using Spearman's *rho* correlational matrix to answer the research question RQ1-RQ4. The researcher identifies and describes the data analysis techniques used in the study to answer the RQ5.

RQ1 Hypothesis Testing

The researcher used the quantitative correlational analysis research method to analyze the panel data, collected using STATA software. In this section, Table 6 presents the non-parametric test through using Spearman's *rho* test to answer the research question RQ1, "Is there a relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t.i}$)? "

Table 6

Spearman's rho Correlations for the research question RQ1

<table>
<tr><td colspan="5" align="center">Correlations</td></tr>
<tr><td></td><td></td><td></td><td>$D_{(t,i)}$</td><td>INST %</td></tr>
<tr><td rowspan="6">Spearman's rho</td><td rowspan="3">$D_{(t,i)}$</td><td>Correlation Coefficient</td><td>1.000</td><td>.291**</td></tr>
<tr><td>Sig. (2-tailed)</td><td>.</td><td>.000</td></tr>
<tr><td>N</td><td>259</td><td>259</td></tr>
<tr><td rowspan="3">IINST %</td><td>Correlation Coefficient</td><td>.291**</td><td>1.000</td></tr>
<tr><td>Sig. (2-tailed)</td><td>.000</td><td>.</td></tr>
<tr><td>N</td><td>259</td><td>259</td></tr>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Where:

- $D_{(t,i)}$: Dividend pay-out ratio

- INST: Total percentage of shares held by foreign and domestic institutional investors -mutual funds and investment trusts owning 5% or more equity.

Table 6 presents Spearman's *rho*, which revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the percent of institutional ownership (INST %) during the 2011-2017 (*rs*[259] = .291, p < .01).

The hypotheses for RQ1 were:

H0: There is no relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t,i}$).

H1: There is a relationship between institutional ownership and (INST) and the corporation's dividend payout ratio ($D_{t,i}$).

The null hypothesis was rejected, and the alternate hypothesis was accepted. The effect size of this relationship was small (Cohen, 1988).

RQ2 Hypothesis Testing

In this section, Table 7 presents the non-parametric test through using Spearman's *rho* test to answer the research question RQ2, "Is there a relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t,i}$)?"

112

Table 7

Spearman's rho Correlations for the research question RQ2

	Correlations		$D_{(t,i)}$	MAN %
			$D_{(t,i)}$	MAN %
Spearman's rho	$D_{(t,i)}$	Correlation Coefficient	1.000	.060
		Sig. (2-tailed)	.	.339
		N	259	259
	MAN %	Correlation Coefficient	.060	1.000
		Sig. (2-tailed)	.339	.
		N	259	259

Where:

- $D_{(t,i)}$: Dividend pay-out ratio

- MAN: Measured by the summation of the total percentage of equity held by the shareholders that take part in the firm's management, either through their natural presence or representation in the Board of Directors or through the undertaking of managerial tasks –or through a combination of the two.

Table 7 presents the Spearman's *rho* that revealed a statistically nonsignificant relationship between the dividend payout ratio ($D_{(t,i)}$) and the percent of managerial ownership during the 2011-2017 (*rs*[259] = .060, p > .01).

The hypotheses for RQ2 were:

H0: There is no relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t,i}$).

H1: There is a relationship between managerial ownership and (INST) and the corporation's dividend payout ratio ($D_{t,i}$).

It was not possible to reject the null hypothesis, so it was retained.

RQ3 Hypothesis Testing

In this section, Table 8 presents the non-parametric test by using Spearman's *rho* test to answer the research question RQ3, "Is there a relationship between the additional variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size and leverage (LEV), and the corporation's dividend payout ratio ($D_{t,i}$)?"

113

Table 8

Spearman's rho Correlations for the research question RQ3

			$D_{(t,i)}$	$E_{(t,i)}$	LEV	MTBV	FCF	Size
			Correlations					
Spearman's rho	$D_{(t,i)}$	Correlation Coefficient	1.000	.810**	-.216**	.429**	.537**	.226**
		Sig. (2-tailed)	.	.000	.001	.000	.000	.000
		N	259	259	256	259	219	259
	$E_{(t,i)}$	Correlation Coefficient	.810**	1.000	-.212**	.444**	.572**	.227**
		Sig. (2-tailed)	.000	.	.001	.000	.000	.000
		N	259	259	256	259	219	259
	LEV	Correlation Coefficient	-.216**	-.212**	1.000	-.360**	-.156*	-.072
		Sig. (2-tailed)	.001	.001	.	.000	.022	.253
		N	256	256	256	256	217	256
	MTBV	Correlation Coefficient	.429**	.444**	-.360**	1.000	.315**	-.116
		Sig. (2-tailed)	.000	.000	.000	.	.000	.062
		N	259	259	256	259	219	259
	FCF	Correlation Coefficient	.537**	.572**	-.156*	.315**	1.000	.776**
		Sig. (2-tailed)	.000	.000	.022	.000	.	.000
		N	219	219	217	219	219	219
	Size	Correlation Coefficient	.226**	.227**	-.072	-.116	.776**	1.000
		Sig. (2-tailed)	.000	.000	.253	.062	.000	.
		N	259	259	256	259	219	259

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Where:

- $D_{(t,i)}$: Dividend pay-out ratio

- $E_{(t,i)}$: Earning per share.

- Lev, which is long term debt deflated by the book value of equity,

- MTBV, which is measured as the ratio of market to book value of equity,

- FCF which is measured as the funds available to managers before discretionary capital investment decisions. FCF includes net income, depreciation, and the interest expense of the firm.

- Size, which is a natural log of total assets

114

The Spearman's *rho* in Table 8 presents a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation earning per share ($E_{(t,i)}$) during the 2011-2017 ($rs[259] = .810$, p < .01). The effect size of this relationship was large (Cohen, 1988).

In Table 7, Spearman's *rho* revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation leverage ratio (LEV) during the 2011-2017 ($rs[259] = -.261$, p < .01). The effect size of this relationship was small (Cohen, 1988).

In Table 8 the Spearman's *rho* revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the Market to Book value ratio (MTBV) during the 2011-2017 ($rs[259] = .429$, p < .01). The effect size of this relationship was small (Cohen, 1988).

In Table 7, Spearman's *rho* revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the Free Cash Flow (FCF) during the 2011-2017 ($rs[259] = .537$, p < .01). The effect size of this relationship was small (Cohen, 1988).

For the last variable, in Table 8 the Spearman's *rho* revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the Firm's Size during the 2011-2017 ($rs[259] = .226$, p < .01). The effect size of this relationship was small (Cohen, 1988).

The hypotheses for RQ3 were:

H0: There is no relationship between earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t,i}$).

H1: There is a relationship earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size, and leverage (LEV), and the dependent variable, the corporation's dividend payout ratio ($D_{t,i}$).

In summary, for all variables in RQ3, the null hypothesis was rejected, and the alternate hypothesis was accepted.

<div align="center">

RQ4 Hypothesis testing

</div>

In this section, Table 9 presents the results of Spearman's *rho* (*rs*) test for all the variable together in the RQ4, "To what extent do the institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm size, and leverage (LEV) explain the variance in the Jordanian corporations' dividends payout ratio ($D_{t.i}$)?"

Table 9

Spearman's rho Correlations for the research question RQ4

<div align="center">

Correlations

</div>

		$D_{(t,i)}$	INST %	MAN %	$E_{(t,i)}$	LEV	MTBV	FCF	Size
$D_{(t,i)}$	Correlation Coefficient	1.000	.291**	.060	.810**	-.216**	.429**	.537**	.226**
	Sig. (2-tailed)	.	.000	.339	.000	.001	.000	.000	.000
	N	259	259	259	259	256	259	219	259
INST %	Correlation Coefficient	.291**	1.000	.612**	.234**	.000	.117	.144*	.125*
	Sig. (2-tailed)	.000	.	.000	.000	.997	.059	.034	.044
	N	259	259	259	259	256	259	219	259
MAN %	Correlation Coefficient	.060	.612**	1.000	.043	-.188**	.141*	.129	.148*
	Sig. (2-tailed)	.339	.000	.	.489	.002	.023	.057	.017
	N	259	259	259	259	256	259	219	259
$E_{(t,i)}$	Correlation Coefficient	.810**	.234**	.043	1.000	-.212**	.444**	.572**	.227**
	Sig. (2-tailed)	.000	.000	.489	.	.001	.000	.000	.000
	N	259	259	259	259	256	259	219	259
LEV	Correlation Coefficient	-.216**	.000	-.188**	-.212**	1.000	-.360**	-.156*	-.072
	Sig. (2-tailed)	.001	.997	.002	.001	.	.000	.022	.253
	N	256	256	256	256	256	256	217	256
MTBV	Correlation Coefficient	.429**	.117	.141*	.444**	-.360**	1.000	.315**	-.116
	Sig. (2-tailed)	.000	.059	.023	.000	.000	.	.000	.062
	N	259	259	259	259	256	259	219	259

FCF	Correlation Coefficient	.537**	.144*	.129	.572**	-.156*	.315**	1.000	.776**
	Sig. (2-tailed)	.000	.034	.057	.000	.022	.000	.	.000
	N	219	219	219	219	217	219	219	219
Size	Correlation Coefficient	.226**	.125*	.148*	.227**	-.072	-.116	.776**	1.000
	Sig. (2-tailed)	.000	.044	.017	.000	.253	.062	.000	.
	N	259	259	259	259	256	259	219	259

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Since the researcher could not run a parametric analysis, the researcher could not estimate the total variance accounted for by combined independent variables.

RQ5 Hypothesis testing

In this section, the researcher presents the results of RQ5, :Which of these models; the Full Adjustment model (FAM) and the Partial Adjustment model (PAM) able best to explain the behavior of Jordanian Corporations Dividends policy $(D_{t.i} - D_{(t-1)i})$?"

The researcher used the quantitative correlational analysis research method to analyze the panel data collected using STATA software. As Greene (2003); Gujarati (2003), the panel data analysis assumed by the pooled, fixed effect, and random effects techniques. In the pooled model, all the observations are entered together, and the test coefficients interpret the overall effect with no specific time or individual aspect.

The fixed-effect model permits the researcher to control unobserved heterogeneity that defines individual specific influences not noticed by observed variables. In contrast, the random-effects model is noticed by the error term comprising a specific individual and an overall element (Gujarati, 2003).

The research applied both Breusch and Pagan's (1980) technique and the Hausman tests to determine the superior method used to test the current data set. Breusch and Pagan's test used to differentiate random-effects models from the pooled model using the null hypothesis that the cross-sectional variance components values are zero. A significant

117

Breusch and Pagan's technique rejects the null hypothesis and proposes that the individual influence is not equal to zero. The Hausman test is applied to differentiate fixed effects from the random-effects model. Under the null hypothesis, the coefficients projected by the efficient random effects estimator are identical to the ones projected by the consistent fixed effects estimator. On the other hand, the null hypothesis's rejection assumed that the fixed effects estimations are more suitable than random effects estimations.

Empirical Estimation Results for Full Adjustment Model (FAM)

The Full Adjustment model (FAM) has been tested using the following equation:

$$D_{t,i} - D_{(t-1)i} = \alpha_0 + \alpha_1(E_{t,i} - E_{(t-1)i}) + \alpha_2(E_{t,i} - E_{(t-1)i})DINS + \alpha_3(E_{t,i} - E_{(t-1)i})DMAN + \alpha_4 Size_{t,i} + \alpha_5 Lev_{t,i} + \alpha_6 MTBV_{t,i} + \alpha_7 FCF_{t,i} + u_{t,i}$$ Model 1

Following Greene's (2003) methodology, to make a decision to choose between fixed or random-effects models, the researcher ran a Hausman diagnostic test where the null hypothesis was that the Random Effect regression model is appropriate vs. the alternative hypothesis where the Fixed Effect regression model is appropriate:

Hausman test hypothesis:

H0: Random Effect test model is appropriate

H1: Fixed Effect test model is appropriate

The Breusch and Pagan's test was applied to choose between random effects and the pooled model under the hypothesis that:

H0: Pooled model test model is appropriate

H1: Random Effect test model is appropriate

Table 10presents the estimation results for the pooled model. Table 11 presents the fixed-effect model's estimation results, and Table 12presents the estimation results for the random-effect model.

Table 10

118

Estimation Results for FAM Model using the Pooled Test Method

Source	SS	df	MS	Number of obs = 216
				F (7, 208) = 4.13
Model	0.453118825	7	.064731261	Prob > F = 0.0003
Residual	3.26204114	208	.01568289	R-squared = 0.1220
				Adj R-squared = 0.0924
Total	3.71515997	215	.017279814	Root MSE = 0.12523

$D_{t,i} - D_{(t-1)i}$	Coef.	Std. Err.	t	P>t	Beta
$E_{t,i} - E_{(t-1)i}$	0.3845538	.1627734	2.36	0.019	0.5274791
$(E_{t,i} - E_{(t-1)i})INSTD$	-0.0373096	.1803227	-0.21	0.836	-0.0489387
$(E_{t,i} - E_{(t-1)i})INSTD$	-0.2773257	.1076084	-2.58	0.011	-0.3070042
Size	0.0147686	.0131052	1.13	0.261	0.1310468
Lev	0.0108879	.0122221	0.89	0.374	0.0597537
MTBV	0.0272134	.0126788	2.15	0.033	0.1664567
FCF	0.0000119	.0098436	0.00	0.999	0.0001379
_cons	-0.2465098	.1372277	-1.80	0.074	.

Note. INST: is a dummy variable representing the ownership of a significant percentage of shares by institutional investors. The percentage ownership by institutional investors is higher than the mean percentage of the sample and equals 0 otherwise.
MAN: is a dummy variable representing the ownership of shares by managers, which equals 1 when the percentage of managerial ownership is higher than the mean percentage of the sample and equals 0 otherwise.
Additional variables are Size, which is the natural log of total assets.
Lev, which is long term debt deflated by the book value of equity,
MTBV, which is measured as the ratio of market to book value of equity,
FCF which is measured as the funds available to managers before discretionary capital investment decisions.
FCF includes net income, depreciation, and the interest expense of the firm.

Table 11

Estimation Results for FAM Model using the Fixed Effects Method

Fixed-effects (within) regression					Number of obs	=	216
Group variable: code					Number of groups	=	36
R-sq: within = 0.0959					Obs per group: min =		2
between = 0.1904					avg =		6.0
overall = 0.0915					max =		7
					F (7,173)	=	2.62
corr (u_i, Xb) = -0.4491					Prob > F	=	0.0135

$D_{t,i} - D_{(t-1)i}$	Coef.	Std.Err.	T	P>t	[95%Conf	. Interval]
$E_{t,i} - E_{(t-1)i}$	0.3495	0.19445	1.8	0.074	-0.0343	0.7333
$(E_{t,i} - E_{(t-1)i})INSTD$	0.0291	0.21093	0.14	0.891	-0.4454	0.3873
$(E_{t,i} - E_{(t-1)i})MAND$	-0.2958	0.12641	-2.34	0.02	-0.5453	-0.0463
size	0.0314	0.04134	0.76	0.449	-0.0502	0.1130
lev	0.0140	0.01741	0.81	0.421	-0.0203	0.0484

MTBV	0.0290	0.02231	1.3	0.195	-0.0150	0.0731
FCF	0.0078	0.01982	0.4	0.693	-0.0313	0.0470
_cons	-0.6427	0.70554	-0.91	0.364	-2.0353	0.7499
sigma_u	0.0428					
sigma_e	0.1335					
rho	0.0931	(fraction of variance due to u_i)				
F test that all u_i=0:	F (35, 173) = 0.29			Prob > F = 1.0000		

Table 12

Estimation Results for FAM Model using the Random Effects Method

Random-effects GLS regression				Number of obs	=	216	
Group variable: code				Number of groups	=	36	
R-sq: within = 0.0925				Obs per group: min =		2	
between = 0.3953						avg =	6.0
overall = 0.1220						max =	7
				Wald chi2(7) = 28.89			
corr (u_i, X) = 0 (assumed)				Prob > chi2 = 0.0002			

$D_{t,i} - D_{(t-1)i}$	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
$E_{t,i} - E_{(t-1)i}$	0.3846	0.1628	2.36	0.018	0.0655	0.7036
$(E_{t,i} - E_{(t-1)i})INSTD$	0.0373	0.1803	0.21	0.036	-0.3907	0.3161
$(E_{t,i} - E_{(t-1)i})MAND$	-0.2773	0.1076	-2.58	0.01	-0.4882	-0.0664
Size	0.0148	0.0131	1.13	0.26	-0.0109	0.0405
Lev	0.0109	0.0122	0.89	0.373	-0.0131	0.0348
MTBV	0.0272	0.0127	2.15	0.032	0.0024	0.0521
FCF	0.0000	0.0098	0.00	0.999	-0.0193	0.0193
_cons	-0.2465	0.1372	-1.8	0.072	-0.5155	0.0225
sigma_u	0					
sigma_e	0.1335					
rho	0	(fraction of variance due to u_i)				

Table 13

Hausman Test (FAM) Model

| | Coefficients | | | |
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	Fixed-Effect	Random-Effect	Difference	S.E.
$E_{t,i} - E_{(t-1)i}$	0.349484	0.3845538	-0.03507	0.1063792
$(E_{t,i} - E_{(t-1)i})INSTD$	0.029063	0.0373096	-0.008247	0.1094335
$(E_{t,i} - E_{(t-1)i})MAND$	-0.295827	-0.2773257	-0.018501	0.0663331
Size	0.031384	0.0147686	0.016615	0.0392041
LEV	0.014028	0.0108879	0.00314	0.012397
MTBV	0.029019	0.0272134	0.001806	0.0183562
FCF	0.007835	0.0000119	0.007823	0.0172053

b= consistent under Ho and Ha; obtained from Fixed effect
B = inconsistent under Ha, efficient under Ho; obtained from Random effect
Test: Ho: difference in coefficients not systematic

chi2(7)	=	(b-B)'[(V_b-V_B) ^ (-1)] (b-B)
	=	1.74
Prob>chi2	=	0.9729

Hausman test hypothesis:

H0: Random Effect test model is appropriate

H1: Fixed Effect test model is appropriate

Based on the Hausman test result (Table 13), the probability value was too high.

Prob>chi2= 0.9729 more than 5%; the null hypothesis was rejected, and the null hypothesis

was accepted, meaning that Random Effect Model was appropriate to explain the FAM

model.

Table 14

Breusch-Pagan / Cook-Weisberg Test for Heteroskedasticity (FAM) Model

$D_{t,i} - D_{(t-1)i}$ [corporation] = Xb + u[corporation] + e [corporation, t]

Estimated results:

Var	Sd	Sqrt (Var)
$D_{t,i} - D_{(t-1)i}$	0.172798	0.1314527
e	0.0178215	0.1334973
u	0	0

Test: Var(u) = 0

121

chi2(1) =   9.08

Prob > chi2 =   0.0026

Breusch and Pagan's test Hypothesis:

H0: Pooled model test is appropriate

H1: Random Effect tests is appropriate

Based on the Breusch and Pagan's test (Table 14), the probability value was low (Prob>chi2= 0.0026), which was less than 5%, so we can reject the null hypothesis and accept the alternative hypothesis meaning that the random effect test model is appropriate to explain the FAM model.

To summarize, based on the Hausman test and Breusch and Pagan's test results, both tests indicated that the Random Effect model was the best model to represent the data in the FAM model.

Empirical Estimation Results for Partial Adjustment Model (PAM)

The following equation was used to test the Partial Adjustment Model (PAM):

$$D_{t,i} - D_{(t-1)i} = \alpha_0 + c\alpha_1 E_{t,i} + c\alpha_2 E_{t,i}DINS + c\alpha_3 E_{t,i}DMAN - cD_{(t-1)i} +$$

$$\alpha_4 Size_{t,i} + \alpha_5 Lev_{t,i} + \alpha_6 MTBV_{t,i} + \alpha_7 FCF_{t,i} + u_{t,i} \qquad \text{Model 2}$$

The previous equation in Model 2 has been tested using three different diagnostic methods, the Pooled, Fixed-Effect, and Random-Effect tests. Following Greene's (2003) method to decide whether to choose between the fixed or random-effects model, the researcher ran a Hausman diagnostic test where the null hypothesis was the Random Effect model was appropriate vs. the alternative hypothesis the Fixed Effect regression model was appropriate:

Hausman test hypothesis:

H0: Random Effect test model is appropriate

H1: Fixed Effect test model is appropriate

122

Additionally, the researcher used the Breusch and Pagan's test to choose between the random effects and the pooled model. Under the hypothesis that:

H0: Pooled model test model is appropriate

H1: Random Effect test model is appropriate

Table 15 presents the estimation results for the pooled method. In contrast, Table 16 presents the estimation results for the fixed-effect model, and Table 17 presents the estimation results for the random-effect model.

Table 15

Estimation Results for PAM Model using the Pooled Test Method

					Number of obs = 72	
Source	SS	df	MS		F (8,63) = 5.29	
Model	31.3511113	8	3.91888891		Prob>F= 0.000	
Residual	46.6666275	63	0.740740118		R-squared = 0.4018	
Total	78.0177387	71	1.09884139		Adj R-squared= 0.3259	
					Root MSE= 0.86066	
$D_{t,i} - D_{(t-1)i}$	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
$E_{t,i}$	0.5159315	0.1988788	2.59	0.012	0.118504	0.913359
$E_{t,i} * MAND$	-0.1455633	0.110744	-1.31	0.193	-0.3668674	0.0757409
$E_{t,i} * INSTD$	4.926327	1.308485	3.76	0.000	2.311528	7.541126
$D_{(t-1)i}$	-6.385364	1.503637	-4.25	0.000	-9.390142	-3.380586
LEV	0.1000721	0.1196591	0.84	0.406	-0.1390475	0.3391916
$MTBV$	0.2203045	0.1508106	1.46	0.149	-0.0810665	0.5216754
$Size$	-0.3111173	0.19907	-1.56	0.123	-0.7089269	0.0866923
FCF	0.072426	0.1748775	0.41	0.680	-0.2770388	0.4218908
_cons	1.909254	2.282935	0.84	0.406	-2.652828	6.471335

Where*:*
INST: is a dummy variable representing the ownership of a significant percentage of shares by institutional investors. The percentage ownership by institutional investors is higher than the mean percentage of the sample and equals 0 otherwise.
MAN: is a dummy variable representing the ownership of shares by managers, which equals 1 when the percentage of managerial ownership is higher than the mean percentage of the sample and equals 0 otherwise.
$E_{t,i}$: Earning per share for the current year
$D_{(t-1)i}$: Is the Lag dividend payout ratio
Size is the natural log of total assets,
Lev: is long term debt deflated by the book value of equity,
MTBV: is measured as the ratio of market to book value of equity,
FCF: is measured as the funds available to managers before discretionary capital investment decisions. FCF includes net income, depreciation, and the interest expense of the firm.

Table 16

Estimation Results for PAM Model using the Fixed Effects Method

Fixed-effects (within) regression				Number of obs		=	72	
				Number of groups		=	28	
R-sq: within = 0.4413				Obs per group: min =			1	
between = 0.0506						avg=		2.6
overall = 0.1396						max=		5
				F (8,36)		=	3.55	
corr (u_i, Xb) = -0.3877				Prob > F		=	0.0039	

$D_{t,i} - D_{(t-1)i}$	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
$E_{t,i}$	0.0545674	0.2144463	0.25	0.004	-0.4894846	0.3803498
$E_{t,i} * MAND$	-0.0951382	0.3259161	-0.29	0.772	-0.7561266	0.5658502
$E_{t,i} * INSTD$	5.375164	1.581211	3.4	0.002	2.168319	8.582009
$D_{(t-1)i}$	-8.448851	1.730322	-4.88	0.000	-11.95811	-4.939595
LEV	0.1491659	0.3240515	0.46	0.648	-0.5080409	0.8063728
MTBV	0.0923037	0.1523397	0.61	0.548	-0.2166555	0.4012629
Size	0.1723186	0.4586501	0.38	0.709	-0.7578668	1.102504
FCF	0.1333332	0.2548058	0.52	0.604	-0.3834368	0.6501033
_cons	-8.211307	8.342072	-0.98	0.332	-25.12981	8.707199
sigma_u	1.068752					
sigma_e	0.63478542					
Rho	0.73922025	(fraction of variance due to u_i)				
F test that all u_i=0:			F (27, 36) = 2.96			Prob > F = 0.0013

Table 17

Estimation Results for PAM Model using the Random Effects Method

Random-effects GLS regression				Number of obs	=	72	
R-sq: within = 0.3380				Number of groups	=	28	
between = 0.4504				Obs per group: min =		1	
overall = 0.3704							avg= 2.6
							max= 5
				Wald chi2(8)	=	36.91	
corr (u_i, X) = 0 (assumed)				Prob > chi2	=	0.0000	

$D_{t,i} - D_{(t-1)i}$	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
$E_{t,i}$	0.24951	0.19374	1.29	0.198	-0.1302	0.6292336
$E_{t,i} * MAND$	-0.0859	0.12958	-0.66	0.507	-0.3399	0.1680292
$E_{t,i} * INSTD$	5.54326	1.29717	4.27	0.000	3.00086	8.085663
$D_{(t-1)i}$	-7.481	1.46435	-5.11	0.000	-10.351	-4.610896
LEV	0.07611	0.1433	0.53	0.595	-0.2048	0.3569754
MTBV	0.19994	0.14411	1.39	0.165	-0.0825	0.4823952

Size	-0.3268	0.20362	-1.6	0.109	-0.7259	0.0723255
FCF	0.15671	0.17078	0.92	0.359	-0.178	0.4914341
_cons	0.50918	2.51395	0.2	0.839	-4.4181	5.436421
sigma_u	0.52277					
sigma_e	0.63479					
rho	0.40413		(fraction of variance due to u_i)			

Following Greene's (2003) method, the researcher ran a Hausman diagnostic test to decide whether to choose between the fixed or random-effects models. The null hypothesis was that the Random Effect Model was appropriate vs. the alternative hypothesis the Fixed Effect Model was appropriate.

H0: Random Effect Model is appropriate

H1: Fixed Effect Model is appropriate

Table 18

Hausman Test for (PAM) Model

	Coefficients			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	Fixed Effect	Random Effect	Difference	S.E.
$E_{t,i}$	0.0545674	0.2495072	-0.1949398	0.0919317
$E_{t,i} * MAND$	-0.0951382	-0.0859476	-0.0091906	0.299048
$E_{t,i} * INSTD$	5.375164	5.54326	-0.1680956	0.9042034
$D_{(t-1)i}$	-8.448851	-7.480973	-0.9678784	0.9217853
LEV	0.1491659	0.076107	0.0730589	0.2906435
MTBV	0.0923037	0.199939	-0.1076353	0.0493846
size	0.1723186	-0.32677	0.4990886	0.410971
FCF	0.1333332	0.1567107	-0.0233775	0.1891033

b = consistent under Ho and Ha; obtained from Fixed effect
B = inconsistent under Ha, efficient under Ho; obtained from Fixed effect
Test: Ho: difference in coefficients not systematic
chi2(8)   = (b-B)'[(V_b-V_B) ^ (-1)] (b-B)
=   27.40
Prob>chi2 =   0.0006

Table 19

Breusch-Pagan / Cook-Weisberg Test for Heteroskedasticity (PAM) Model

Ho: Constant variance
Variables: fitted values of $D_{t,i} - D_{(t-1)i}$
chi2(1)   =   0.09
Prob > chi2 =   0.7631

Based on the Hausman test (Table 18), the probability value is too low, where the Prob>chi2= 0.0006 is less than 5%. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted, meaning that the Fixed Effect Model is appropriate to explain the PAM model.

The hypotheses for RQ5 were:

H0: The ability of the Full Adjustment model (FAM), better than the Partial Adjustment to explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i} - D_{(t-1)i}$).

H1: The ability of the Partial Adjustment model (FAM), better than the Full Adjustment to explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i} - D_{(t-1)i}$).

In summary, we notice that from the analysis results of the Pooled, Fixed-effects, and Random-effects tests for Models 1 and 2, the best methods representing the data were random-effects for Model 1 and the Fixed-Effect method for Model 2. The null hypothesis for the RQ5, i.e., that the ability of the Full Adjustment model (FAM) is better than the Partial Adjustment (PAM) to explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i} - D_{(t-1)i}$), was rejected, and the alternate hypothesis was accepted.

Data Findings

This section presents the estimation results for the research question RQ1- RQ4 using the non-parametric analysis to test the relationship between the dividend payout ratio and the study variables. Additionally, for the RQ5, the researcher presented the estimation techniques to test both the full and partial adjustment models. Despite the estimation results for all

126

econometrics techniques, the discussion only addresses the one that was the best model representing the study data.

The researcher ran a non-parametric test using Spearman's *rho* test to answer the research question RQ1, "Is there a relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t.i}$)?," Spearman's *rho* (Table 6) revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the percent of institutional ownership (INST %) during the 2011-2017 (*rs*[259] = .291, p < .01). The null hypothesis was rejected, and the alternate hypothesis was accepted. The effect size of this relationship was small (Cohen, 1988).

The existence of institutional ownership had a tendency to increase the corporation dividend distribution at level 5%; the estimation results indicated that the coefficient of institutional ownership was found to be positive and statistically significant, which added further support to the argument that institutional ownership can alleviate the agency problem among corporation's management and shareholders. Because of their significant holding of stocks, institutional stockholders have influential power to control management's behavior. Furthermore, the result validates that the existence of institutional ownership increases the corporation's dividend.

The current study result was consistent with the agency theory of free cash flow (Jensen, 1986), suggesting that corporations may utilize dividend distribution to limit executives' ability to use the money to gain personal benefits. Also, the study results added further evidence to Shleifer and Vishny's (1986) premises that ownership's concentration has the tendency to contribute to the large shareholder power to control and monitor the management behavior. Such a large shareholder's role will control the free-rider issue related to disperse ownership, where minor stockholders were not motivated to incur monitoring costs for other stockholders' benefit. Since there are strict financial discipline statues,

corporations enhance their capital distribution, diminish unprofitable investment projects, and substantially show higher performance. Consequently, institutional ownership can play a significant role to overcome the agency conflict problem among stockholders and the corporation's management. Since they are the major holders of stocks, institutional stockholders have the power to monitor the corporation's managerial behavior.

With regards to the RQ2, "Is there a relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t.i}$)?," Spearman's *rho* (Table 7) revealed a statistically nonsignificant relationship between the dividend payout ratio ($D_{(t,i)}$) and the percent of managerial ownership during the 2011-2017 ($rs[259] = .060, p > .01$). It was not possible to reject the null hypothesis, so it was retained.

With regards RQ3, "Is there a relationship between the additional variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm size and leverage (LEV), and the corporation's dividend payout ratio ($D_{t.i}$)? ,", the Spearman's *rho* (Table 8) revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation earning per share ($E_{(t,i)}$) during the 2011-2017 ($rs[259] = .810, p < .01$). The effect size of this relationship was large (Cohen, 1988). The estimation results (Table 8) represent the coefficient of earning ($E_{(t,i)}$), which was found to be positive and statistically significant at the 5% level. This means that current earnings ($E_{(t,i)}$) have a positive relationship with the dividend payout ratio of Jordanian corporation. Consequently, any increase in current earnings ($E_{(t,i)}$) is anticipated to lead to an increase in the dividend distribution.

Regarding the growth opportunity, which is measured by the market to book value ratio (MTBV) variable, the empirical estimation results present a positive relationship with the dividend payout ratio ($D_{(t,i)}$), and the Market to Book value ratio (MTBV), during the 2011-2017 ($rs[259] = .429, p < .01$) (Table 8). The effect size of this relationship was small

128

(Cohen, 1988). The MTBV and dividend payout have a statistically significant positive relationship at level 5%, which contrasts with the hypothesized negative relationship between dividend payout ratio and future growth opportunity.

The influence of growth opportunities on the prospect of dividend distribution has been inconsistent. Allen and Michaely's (2001) findings and other scholars (e.g., Jensen et al., 1992; Rozeff, 1982) pointed out that corporations with a high level of information asymmetry and high available growth opportunities should not distribute dividends. Conversely, low-growth corporations may distribute relatively high dividends in the case of limited opportunities for profitable project investments (Alli et al., 1993). The reason behind the negative relationship is that corporations would rather avoid transaction costs of external financing sources, consequently holding a more significant percentage of cash for financing purposes if they have prospective growth opportunities. If the corporations have growth opportunities, they retain a larger percentage of cash as retained earnings.

Furthermore, there is a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation leverage ratio (LEV) during the 2011-2017 (rs[259] = -.261, p < .01) (Table 8). The effect size of this relationship was small (Cohen, 1988). The LEV and dividend payout have a statistically significant negative relationship at level 5%, consistent with the assumption of Jensen's free cash flow theory (1986), who demonstrated that debt utilization could decrease the dividend to relieve agency conflicts among shareholders managers. Therefore, the agency theory of free cash flow proposed a negative relationship between debt and dividend. Additionally, based on the Pecking Order Theory assumptions, corporations prefer to finance their investment projects with their retained earnings (Myers & Majluf, 1984). The results of the analysis added further support to the Pecking Order Theory, which is consistent with Myers and Frank's (2004), Kouki and Guizani (2009), Vo and Nguyen (2014) studies.

129

Additionally, a statistically significant relationship exists between the dividend payout ratio ($D_{(t,i)}$) and free cash flow (FCF) (r [259] = .537, p < .01). The effect size of the relationship between the dividend payout ratio and FCF was small (Cohen, 1988). The result is consistent with Jensen (1986), who demonstrated that when firms have cash exceeding investment financing needs, they should distribute dividends to minimize managerial discretion. Also, the result provides further evidence that supports the free cash flow hypothesis. Companies should pay dividends to minimize the agency costs of investment projects' free cash flow with positive net present value (NPV).

Furthermore, a statistically significant relationship exists between the dividend payout ratio ($D_{(t,i)}$) and firm's size (r [259] = .226, p < .01). The effect size of the relationship between the dividend payout ratio and the firm's size was small (Cohen, 1988). The result is consistent with Scott & Martin (1975), who demonstrated that firm size is considered one of the crucial variables influencing the corporations' debt and dividend policies. In addition, Smith & Watts (1992) documented that corporations with more total assets can have higher dividend payout ratios.

From the signaling theory perspective, Gadhoum (2000) proposed that the signaling efficiency of dividends decline for the more giant corporations because larger corporations produce more information than smaller ones. Ramachandran and Packkirisamy (2010) also find that the firm size significantly affects the dividend payout ratio. In summary, for all variables in RQ3, the null hypothesis was rejected, and the alternate hypothesis was accepted.

With regard to the RQ4, " To what extent do the institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm size, and leverage (LEV), explain the variance in the Jordanian corporations' dividends payout ratio ($D_{t.i}$), " the researcher could not run parametric analysis, and could not estimate the total variance accounted for by combined independent variables.

To answer the RQ5, the researcher tested the (FAM) and the (PAM) through running the pooled, the fixed effects, and the random-effects models. The Hausman ch^2 test (Table 12), was statistically insignificant, assuming that the Random Effect model was the preferred statistical method to fit the current data set to test the (FAM) model. The Random-Effect test's estimation results (Table 11) show the prob>F value equals 0.0002, which means all the model coefficients are different from zero. The model is statistically significant at the level where p<0.005, and the R^2 value equals 0.0925.

In the context of testing the PAM, the Hausman ch^2 test indicated a statistically significant p<0.05, assuming that the Fixed-Effect model was the preferred statistical method to fit the current data set to test the (PAM) model (Table 18). The fixed-effect test's estimation results show a prob>F value equal to 0.0039 (Table 15). The results implied that all the coefficients in the model are different from zero, and the model was found statistically significant at the level where the p was <0.005, and the R^2 value was equal to 0.4413.

To recapitulate, the analysis results for the FAM and PAM models, when comparing the corporations that have a meaningful existence of institutional ownership, it have a Dummy variable equal to 1 (INST $_{Dummy}$=1). Therefore, α for the corporations is equal to the summation of α1 and α2. Otherwise, it is equal to α1 for the firms that have an INST $_{Dummy}$ =0. Regarding the existence of managerial ownership, to contrast between the corporation, the same procedure is utilized as for institutional ownership; if MAN $_{Dummy}$ =1, then α for the corporations is equal to the summation of α1 and α3; otherwise, it is equal to α1 for the firms that have a MAN $_{Dummy}$ =0.

In summary, from the analysis results using the Pooled, fixed-effects, and random-effects for Model 1 and 2, the best methods representing the data are the Random-Effect method for the FAM while it is the Fixed-Effect method for the PAM. The null hypothesis for the RQ5, that the ability of the Full Adjustment model (FAM) is better than the Partial

131

Adjustment (PAM) to explain the behavior of Jordanian Corporations Dividends policy ($D_{t,i}$ - $D_{(t-1)i}$), was rejected, and the alternate hypothesis was accepted.

Findings of the Study

The non-parametric test through using Spearman's *rho* test was used to answer the research question RQ1, "Is there a relationship between institutional ownership (INST) and the corporation's dividend payout ratio ($D_{t,i}$)?" The existence of institutional ownership tended to increase the corporation dividend distribution at level 5%; the estimation results added further support to the argument that the institutional ownership can alleviate the agency problem among corporations' management and shareholders. The current study result was consistent with the agency theory of free cash flow (Jensen, 1986). Further evidence was added through the study's result to Shleifer and Vishny's (1986) premises. With regard to the RQ2 "Is there a relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t,i}$)," the Spearman's *rho* (Table 7) revealed a statistically nonsignificant relationship between the dividend payout ratio ($D_{(t,i)}$) and the percentage of managerial ownership. It was not possible to reject the null hypothesis, so it was retained.

With regards RQ3 "Is there a relationship between the additional variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm size and leverage (LEV), and the corporation's dividend payout ratio ($D_{t,i}$)." The Spearman's *rho* (Table 8) revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation earning per share ($E_{(t,i)}$), meaning that current earnings ($E_{(t,i)}$) have a positive relationship with the dividend payout ratio of Jordanian corporation.

Regarding the growth opportunity, which is measured by the market to book value ratio (MTBV) variable, the empirical estimation results show a positive relationship with the dividend payout ratio ($D_{(t,i)}$), and the Market to Book value ratio (MTBV) contrasts with the hypothesized negative relationship between dividend payout ratio and future growth

132

opportunity (Table 8). Furthermore, there is a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation leverage ratio (LEV), which was consistent with the assumption of the free cash flow theory of Jensen (1986), who demonstrated that the utilization of debt could decrease the dividend to relieve agency conflicts among shareholders and managers. The results of the analysis added further support to the Pecking Order Theory, which is consistent with Myers and Frank's (2004), Kouki and Guizani (2009), Vo and Nguyen (2014) studies.

Additionally, a statistically significant relationship exists between the dividend payout ratio ($D_{(t,i)}$) and free cash flow (FCF). The result is consistent with Jensen (1986), who demonstrated that when firms have cash exceeding investment financing needs, they should distribute dividends to minimize managerial discretion. Furthermore, a statistically significant relationship exists between the dividend payout ratio ($D_{(t,i)}$) and firm size. The result is consistent with Scott & Martin (1975), who demonstrated that firm size is considered one of the crucial variables influencing the corporations' debt and dividend policies. From the signaling theory perspective, Gadhoum (2000) proposed that the signaling efficiency of dividends decline for the more giant corporations because larger corporations produce more information than smaller ones. In summary, for all variables in RQ3, the null hypothesis was rejected, and the alternate hypothesis was accepted.

Since the researcher was unable to run parametric analysis, the researcher could not estimate the total variance accounted for by combined independent variables with regard to the RQ4, "To what extent do the institutional ownership (INST), managerial ownership (MAN), earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm size, and leverage (LEV), explain the variance in the Jordanian corporations' dividends payout ratio ($D_{t,i}$)."

133

Using the STATA analysis to answer the RQ5, the researcher tested the FAM and the PAM by running the pooled, the fixed effects model, and the random-effects model. The Hausman test was used to select between the Fixed-Effect and Random-Effect regressions tests. Breusch-Pagan's test was employed to select between the Pooled and Random-Effect tests. According to the empirical estimation results of the tests for both the full adjustment model and the partial adjustment model, the best estimation method based on the Hausman test for estimating the full adjustment model was the Random-Effect method. In contrast, the Fixed-Effect test was more suitable for the partial adjustment model.

For the first model utilized in the research, the full adjustment model analysis results (Table 11) present that the Random-Effect test was the best method to represent the full adjustment model dataset. The diagnostic estimation results (Table 11) showed that R^2 value equals 0.0925, where the *p*-value for the model was equal to 0.0005, which is less than 5%. The second model used was the partial adjustment model. The analysis results showed that the Fixed-Effect test is the best method to represent the dataset. The diagnostic estimation results (Table 15) present that R^2 value equals 0.4413, where the p-value for the model equals 0.0039, which is less than 5%.

In summary, from the analysis results for Model 1 and 2, the best methods representing the data are the Random-Effect method for the FAM Model while the Fixed-Effect method for the PAM Model. The null hypothesis for the RQ5 that the ability of the Full Adjustment model (FAM), better than the Partial Adjustment (PAM) to explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i}$ - $D_{(t-1)i}$) was rejected, and the alternate hypothesis was accepted.

The following chapter presents five sections that cover the research's overview, the fulfillment of research purpose, implication for business practice, implications for research, and the research conclusion.

134

Chapter 5

Implications and Conclusions

Overview of the Research Process

The purpose of this quantitative correlation study was to examine the relationship between dividend policy as a dependent variable and ownership concentration using institutional ownership and managerial ownership as independent variables. This research population was corporations listed at the Amman Stock Exchange (ASE) during the period from 2011 to 2017. As a result of using seven standards to select corporations, 37 corporations were selected for the research sample. The researcher manually collected the data on dividends payout ratio, ownership concentration, earnings per share, FCF, firm size, MTBV ratio, and leverage from the corporations' Annual Financial Report. The researcher used the Amman Stock Exchange, Jordanian Securities Depository Center, and the Jordanian Securities Commission websites to download the corporations' annual reports. Spearman's *rho* was used to test the hypothesis related to RQ1-RQ4. Additionally, to answer the RQ5, the researcher used the full adjustment model and the partial adjustment model. To estimate the FAM and PAM results, the researcher used the pooled, fixed effects, and random effects techniques.

This study's significance came from the Jordanian Capital Market properties, which is an emerging market. Such markets' characteristics considered less competition, liquidity, and supervision might be considered a standard of comparing the developing markets with the developed markets. Therefore, the research finding may be valuable for policymakers, investors, and fellow investigators who pursue beneficial assistance from relevant literature. In addition, this research may be a useful benchmark for future studies. This chapter presents the fulfillment of research purpose, implication for business practice, implications for research, and the research conclusions.

135

Fulfillment of Research Purpose

The researcher conducted the study to examine the relationship between ownership concentration on the corporation's dividend payout ratio. A sample of 37 corporations was selected from the research population of corporations listed on the Amman Stock Exchange. The sample was considered representative of Jordanian corporations because it was selected from the services and industrial sectors where yearly financial reports are accessible from 2011 to 2017.

Furthermore, information and agency problems are presumed to exist and affect the corporation's management's behavior. In the Jordanian Capital Market, the market participant, especially investors, still need legal protection and transparency. Furthermore, the limited ownership of the executive management in listed corporations makes the appearance of agency conflicts probable, and therefore affects financing costs. However, Jordanian corporations have institutional ownership that might monitor the behavior of the management.

Three different groups of variables were utilized. First, the dividend payout ratio a dependent variables. Second, the independent variables which contain the institutional ownership and managerial ownership. Finally, the additional variable group includes the earnings per share, firm size, free-cash-flow, future growth opportunities, and leverage.

Since the researcher could not run the parametric tests to answer the RQ1-RQ4, the researcher ran the nonparametric analysis using Spearman's *rho* correlational test through the STATA software to test the relationships between the variables. To answer theRQ5, the researcher utilized three different techniques: pooled, fixed-effect, and random-effect analysis, to test the hypothesis related to the RQ5.

The non-parametric test through using Spearman's rho test was utilized to answer the research question RQ1, "Is there a relationship between institutional ownership (INST) and

the corporation's dividend payout ratio ($D_{t.i}$)?" and presents that the existence of institutional ownership had a tendency to increase the corporation dividend distribution. The estimation results added further support to the argument that institutional ownership can alleviate the agency problem among the corporation's management and shareholders. Also, institutional ownership creates the motivations for controlling stockholders to utilize their impact to raise corporations' value by diminishing resources used in low return investment projects, meaning that further cash flow can be paid as dividends.

With regards to the RQ2, "Is there a relationship between managerial ownership (MAN) and the corporation's dividend payout ratio ($D_{t.i}$)?," it was not possible to reject the null hypothesis, so it was retained.

With regards RQ3, "Is there a relationship between the additional variables that includes earning per share ($E_{t,i}$), free cash flow (FCF), growth opportunity (MTBV), firm's size and leverage (LEV), and the corporation's dividend payout ratio ($D_{t.i}$)?," Spearman's *rho* test revealed a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation earning per share ($E_{(t,i)}$), meaning that current earnings ($E_{(t,i)}$) have a positive relationship with the dividend payout ratio of Jordanian corporation. Regarding the growth opportunity, the empirical estimation results present a positive relationship with the dividend payout ratio ($D_{(t,i)}$), and the Market to Book value ratio (MTBV) contrasts with the hypothesized negative relationship between dividend payout ratio and future growth opportunity. Furthermore, there is a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation leverage ratio (LEV), which was consistent with the assumption of free cash flow theory by Jensen (1986). The results of the analysis added further support to the Pecking Order Theory, which is consistent with Myers and Frank's (2004), Kouki and Guizani (2009), Vo and Nguyen (2014) studies. Additionally, a statistically significant relationship exists between the dividend payout ratio

137

$(D_{(t,i)})$ and free cash flow (FCF). The result is consistent with Jensen (1986), who demonstrated that when firms have cash exceeding investment financing needs, they should distribute dividends to minimize managerial discretion. Furthermore, a statistically significant relationship exists between the dividend payout ratio $(D_{(t,i)})$ and firm size. The result considered firm size as one of the crucial variables influencing the corporations' debt and dividend policies. In summary, for all variables in RQ3, the null hypothesis was rejected, and the alternate hypothesis was accepted.

To answer the RQ5, the researcher tested the FAM and the PAM through running the pooled, the fixed effects, and the random-effects models through using the STATA analysis. The Hausman test was used to select between the Fixed-Effect and Random-Effect regressions tests. Breusch-Pagan's test was employed to select between the Pooled and Random-Effect tests. According to the empirical diagnostic results for both the full adjustment model and the partial adjustment model, the best estimation model based on the Hausman test for estimating the full adjustment model was the Random-Effect method. In contrast, the Fixed-Effect method was more suitable for the partial adjustment model.

The FAM model's analysis results showed that the Random-Effect test was the best method to represent the dataset. The diagnostic estimation results (Table 11) showed that R^2 value equals 0.0925, where the p-value for the model was equal to 0.0005, which is less than 5%. The second model used was the partial adjustment model. The analysis results showed that the Fixed-Effect regression test is the best method to represent the dataset. The diagnostic estimation results presented in Table 15 showed that R^2 value equals 0.4413, where the p-value for the model equals 0.0039, which is less than 5%.

In summary, we notice that from the analysis results for Model 1 and 2, the best methods representing the data are the Random-Effect method for Model 1 while the Fixed-Effect method for Model 2. The results present that every dividend model was statistically

138

significant at a 5% probability level.

In addition, the partial adjustment model (PAM) was superior because it might interpret 44.13% of the change in dividend distribution, while it was only 9.25% for the full adjustment model (FAM). The null hypothesis for the RQ5, i.e., that the ability of the Full Adjustment model (FAM) is better than the Partial Adjustment (PAM) to explain the behavior of Jordanian Corporations Dividends policy ($D_{t.i} - D_{(t-1)i}$), was rejected, and the alternate hypothesis was accepted.

Implications for Business Practice

Spearman's *rho* test's diagnostic estimation results represent that the percentage of institutional ownership (INST) tends to increase the corporation's dividend payout ratio. At level 5%, the Spearman's *rho* test finding showed that the institutional ownership variable's coefficient was positive and statistically significant. The result added additional evidence to the assumption that institutional ownership can minimize the agency problem between the corporation's management and stockholders. Institutional shareholders have the influential power to control management's behavior because of their significant holding of shares,

In addition, the finding of Spearman's *rho* test supports the existence that institutional ownership reduces the corporation's dividend smoothing (Abedelsalam et al., 2008; Kouki & Guizani, 2009). The result also provided more evidence to Shleifer and Vishny's (1986) hypothesis, who supposed that ownership concentration tends to add further power to the large stockholders to control and monitor management behavior. Consequently, it allows the large stockholders to monitor the free-rider aspects correlated with dispersing ownership, where minor stockholders are not motivated to cause monitoring costs for other stockholders' benefit. As a result of the financial discipline statutes, corporations enhance their capital resource allocation, downsize the nonprofits generating investment projects, and substantially present higher performance. Accordingly, institutional ownership may have a significant role

in controlling the agency conflict problem among stockholders and the corporation's management. Institutional stockholders have the power to monitor the corporation's managerial behavior because of their significant holding of stocks.

Regarding managerial ownership (MAN), it was surprising that the Spearman *rho* test finding showed that the existence of managerial ownership had no relationship with the dividend payout ratio. At level 5%, Spearman's *rho* estimation results showed that the coefficient of managerial ownership was found to be statistically insignificant.

With regard to the additional variables used, the estimation results of the Spearman *rho* test presented that the coefficient of earning ($E_{(t,i)}$) was found to be positive and statistically significant at the 5% level, which indicates that current earnings ($E_{(t,i)}$) had a positive relationship with the dividend payout ratio of Jordanian corporations. Consequently, any increase in current earnings ($E_{(t,i)}$) anticipated leading to an increase in the dividend distribution. The result reveals that the ($E_{(t,i)}$) was important and impacts the dividend distribution decision in the selected sample. Therefore, it can be concluded that Lintner's dividend model was a good fit in the sample selected and provides a satisfactory explanation of dividend behavior in most companies that are paying dividends regularly.

The Market to Book value ratio (MTBV) had a positive relationship with the dividend payout ratio ($D_{(t,i)}$), which contrasts with the hypothesized negative relationship between dividend payout ratio and future growth opportunity. Furthermore, there is a statistically significant relationship between the dividend payout ratio ($D_{(t,i)}$) and the corporation leverage ratio (LEV), which was consistent with the assumption of the free cash flow theory of Jensen (1986). The results of the analysis added further support to the Pecking Order Theory, which is consistent with the studies by Myers and Frank(2004), Kouki and Guizani (2009), and Vo & Nguyen (2014). Additionally, a statistically significant relationship exists between the dividend payout ratio ($D_{(t,i)}$) and free cash flow (FCF). The result is consistent

140

with Jensen (1986), who demonstrated that when firms have cash exceeding investment financing needs, they should distribute dividends to minimize managerial discretion. Furthermore, a statistically significant relationship exists between the dividend payout ratio ($D_{(t,i)}$) and firm size. The result considered firm size as one of the crucial variables influencing the corporations' debt and dividend policies. In summary, for all variables in RQ3, the null hypothesis was rejected, and the alternate hypothesis was accepted.

It was a surprise with regards to the lagged of the dependent variable, where the results presented that for $D_{(t-1)i}$i was found statistically significant at level p<0.005. As noticed from diagnostic analysis results in the PAM, one of the explanatory factors $D_{(t-1)i}$, which was the lagged of the dependent variable ($D_{(t,i)}$). Many researchers, for example Baltagi (2008), Greene (2003), and Anderson & Hsiao (1981), pointed out that effective panel data analysis should be utilized if the lagged of the dependent variable is employed as an explanatory variable in the model to test unbiased and consistent estimators.

The overall findings of the research supported the signaling theory. The positive relationship between the institutional ownership and dividend payout ratio suggested that the form of ownership had a relationship with the dividends paid. The researcher assumed in the study that stockholders, regarding stock investment in corporations, should concern themselves with the agency conflict among ownership types.

Stockholders should recognize financial policies (e.g., dividend policy may perform as a mechanism for minimizing agency cost problem). Furthermore, regulatory authorities should also pay attention to the ownership structure in creating the associated regulations to enhance control of the agency conflict process. Moreover, the results showed that the PAM was superior to the FAM in explaining the differences in Jordanian corporation's dividend policy.

Implications for Research

Frankfurter and Wood (2002) demonstrated that dividend payment is an "Unwritten contract between shareholders and corporate management" (p. 128). The agency problem, which was initially examined by Jensen and Meckling (1976), established the theoretical foundation for this research. This research's main objective was to examine the relationship between ownership concentration and the Jordanian corporation's dividend policy during the period from 2012-2017.

The researcher used three different groups of variables. First, the dividend payout ratio as dependent variables. Second, the independent variable group, which contains the institutional ownership and managerial ownership. Finally, the additional variable group includes the firm's size, free-cash-flow, future growth opportunities, and leverage.

To examine the proposed relationship between the variables, the researcher ran the Spearman *rho* test to answer the researches questions RQ1-RQ4. Additionally, to answer the RQ5, the researcher applied two empirical models, specifically the full adjustment and partial adjustment models.

The theoretical literature on corporate dividend policy is centered on two classical theories: The 1956 Lintner Model and Miller and Modigliani's Irrelevant Dividend Theory (1961). Lintner (1956) performed a classic set of interviews with 28 firms' managers regarding their dividend policy. Lintner (1956) proceeded to design a logical model of how corporations decide regarding dividend distributions. Lintner's (1956) model assumed that corporations have a target payout ratio, and any changes in earnings lead to changes in the dividend payout.

Second, Miller and Modigliani (1956) pointed out that based on the perfection hypotheses of the capital market, dividend policy is irrelevant, inferring that shifts in dividend policy should not have any effect on the corporation value because a shareholder

can duplicate a preferred stream of cash flow through purchasing and selling stocks. The Irrelevancy Theory proposed that the value is not influenced by the manner of allocating income between dividend and retained earnings, but by the profitability of new investment opportunity.

For future research, numerous potential factors can be employed to investigate the determinants of dividend policy. However, in this study, the researcher focused on the ownership concentration among the corporations listed on the Amman Stock Exchange and two main factors frequently utilized by prior investigators.

Nevertheless, there is a possibility that supplementary ownership measures may be considered to justify the correlation among dividend payout policy and ownership composition. Therefore, it would be useful if further studies could incorporate other factors such as government ownership, foreign ownership, and other forms of ownership classes, which may enhance understanding of Jordanian corporations' dividend decisions. In addition, the explanatory power of the models being tested in this research implies the necessity of future investigations to emphasize the corporation's governance and other dividend theories (e.g., residual, lifecycle, catering, and signaling theories) in the pursuit to identify the effects of variables on dividend payout policy in the Jordanian Capital Market.

Furthermore, it may be useful to test the effect of the financial crises in 2008 on the dividend policy and examine the models used in different economic situations (e.g., before and after the 2008 financial crisis). Another study may use the banking sector data to test the models used to better understand the dividend policy in the Jordanian Capital Market. The researcher recommends repeating the study after five years to examine whether the relationships or the models testing results will change.

Finally, firm leadership and board governance create additional opportunities for research by conducting a study to examine the relationship between the adoption of corporate governance standards by the Jordanian corporations and the dividend policy.

Conclusions

In this study, the researcher aimed to examine the relationship between ownership concentration and dividend policy for the Amman Stock Exchange corporations. A sample of 37 corporations traded at the Amman Stock Exchange was selected during the period from 2012 to 2017. A quantitative correlational research method was utilized to perform the research. To accomplish the study's goals, the researcher used the data collected to answer the five research questions. The researcher used the STATA software to do statistical analysis. Using the Spearman *rho's* tests, the researcher answers the researcher question from RQ1-RQ4. The dividend payout ratio was used as the dependent variable to represent the Jordanian corporation's dividend policy. At the same time, the independent variable was the ownership concentration, which was represented by institutional ownership and managerial ownership.

The researcher also used additional variables that included the free cash flow (FCF), firm size, market to book value (MTBV), and future growth opportunities. To answer the RQ5, the researcher used two models: the full adjustment model (FAM) and the partial adjustment model (PAM). The researcher used three statistical techniques, namely pooled, fixed-effect, and random-effect models, to test the proposed models used to answer the RQ5. The positive relationship between the institutional ownership and dividend payout ratio suggested that the form of ownership had a relationship with the percentage of dividend paid.

Stockholders should recognize financial policies (e.g., dividend policy may perform as a mechanism for minimizing agency cost problem). Furthermore, regulatory authorities should also pay attention to the ownership structure in creating the associated regulations to

144

enhance control of the agency conflict process. Moreover, the results showed that the PAM was superior to the FAM in explaining the differences in Jordanian corporation's dividend policy.

A corporation's ability to accomplish strategic competitiveness and obtain above-average returns is at risk when strategic leaders neglect to respond appropriately and quickly to changes in the complex global competitive environment. The decreases in agency costs and enhancing in information dissemination lower the cost of capital, and investment at more competitive cost of capital enhances firm value. From the analysis results of this study, the leaders of the Jordanian corporations have to pay attention for existing institutional ownership. The institutional investors play an important role to control what is called the agency cost problem. The leaders of the Jordanian corporations have to maintain a stable dividend which will send a good signal for the shareholders. When they maintain a stable dividend policy, they will attract more shareholders to hold the corporation's stocks. Furthermore, it will send a good signal to the creditors and give the company access to more funds to finance the investment need at competitive costs. For future research, there is a possibility that supplementary ownership measurers may be considered to justify the correlation between dividend payout policy and ownership composition. Therefore, it would be useful if further studies could incorporate other factors such as government ownership, foreign ownership, and other forms of ownership classes, which may enhance understanding of Jordanian corporations' dividend decisions. Furthermore, it may be useful to test the effect of the financial crises in 2008 on the dividend policy and examine the models used in different economic situations (e.g., before and after the 2008 financial crisis). Another study may use the banking sector data to test the models used to better understanding the dividend policy in the Jordanian Capital Market. Finally, firm leadership and board governance create additional opportunities for research by conducting a study to examine the relationship

between the adoption of corporate governance standards by the Jordanian corporations and the dividend policy.

The significance of this research concerns the Jordanian Capital Market properties, which is considered a developing market. Additionally, the results of this study may provide an essential tool for Jordanian corporation leaders to formulate the corporation strategies, primarily financial ones, which is vital to the stockholders to make their investment decisions.

References

Abdelsalam O., El-Masry A., & Elsegini S. (2008). Board Composition, Ownership Structure And Dividend Policies In An Emerging Market Further Evidence From CASE 50. *Managerial Finance, 34*(12*)*, 953-964.

Abdioğlu, N. (2016). On The Determinants of Corporate Dividend Policy: A Tobit Model Approach. *Yönetim ve Ekonomi Araştırmaları Dergisi*, *14*(1), 332-345.

Abuzaid, A. N. (2016). Testing the Impact of Strategic Leadership on Organizational Ambidexterity: A Field Study on the Jordanian Chemical Manufacturing Companies. *International Journal of Business and Management*, *11*(5), 328- 339. http://dx.doi.org/10.5539/ijbm.v11n5p328

Agrawal, A., & Jayaraman, N. (1994). The Dividend Policies of All-Equity Firms: A Direct Test of The Free Cash Flow Theory. *Managerial and Decision Economics*, *15*, 139-148.

Ahmed, H. & Javid, A.Y. (2009). The Determinants Of Dividend Policy In Pakistan. *International Research. Journal of Finance and Economics.* 1. 110-125.

Al-Ajmi, J. and Abo Hussain, H. (2011). Corporate Dividends Decisions: Evidence From Saudi Arabia. *Journal of Risk Finance*, *12*(1), pp. 41-56 https://doi.org/10.1108/15265941111100067

Allen, F., & Michaely, R. (2001). Payout policy. In G. Constantinides, M. Harris, and R. Stulz. (eds). *North Holland Handbook of the Economics of Finance*. Amsterdam: Elsevier Science B.V.

Alli, K., Khan, A., & Ramirez, G. (1993). Determinants of Dividend Policy: A Factorial Analysis. *Finance Review*, *28*, 523-547.

Al-Najjar, B. (2009). Dividend Behavior And Smoothing: New Evidence from Jordanian Panel Data. *Studies in Economics and Finance*, *26*(3), 182-197.

Al-Najjar, B. (2010). Corporate Governance And Institutional Ownership: Evidence From Jordan. *Corporate Governance*, *10*(2), 176-190.

Al-Najjar, B. (2011). The Inter-Relationship between Capital Structure and Dividend Policy: Empirical Evidence from Jordanian Data. *International Review of Applied Economics*, *25*(2), 209-224. doi:10.1080/02692171.2010.483464

Al-Najjar, B., & Kilincarslan, E. (2016). The Effect of Ownership Structure on Dividend Policy: Evidence from Turkey. *Corporate Governance: The International Journal of Effective Board Performance*, *16*(1), 135-161. doi:10.1108/CG-09-2015-0129

Al-Shubiri, F.N., Al-Taleb, G., & Al-Zoued, A.A.N. (2012). The Relationship between Ownership Structure and Dividend Policy: An Empirical Investigation. *Review of International Comparative Management*, *13*(4), 644-657.

Amidu, M., & Abor, J. (2006). Determinants Of Dividend Payout Ratios in Ghana. *Journal of Risk Finance*, *7*, 136-145.

Anderson, T.W., & Hsiao, C. (1981). Estimation of Dynamic Models with Error Components. *Journal of the American Statistical Association*, *76*(375), 598-606.

Andres, C., Doumet, M., Fernau, E., & Theissen, E. (2015). The Lintner Model Revisited: Dividends Versus Total Payouts. *Journal of Banking & Finance*, *55*, 56-69. doi:10. 1016j.jbankfin.2015.01.005

Ang, S. H. (2014). *Research design for business & management*. SAGE.

Arora, R. K., & Srivastava, A. (2019). Ownership Concentration and Dividend Payout in Emerging Markets: Evidence from India. *Global Business Review*. https://doi.org/10.1177/0972150918824953

ASE Annual report. (2019). Retrieved from https://www.ase.com.jo/en/library-and-publications?publication_category=16&page=0

Amman Stock Exchange (2018). ASE Annual report. Retrieved from

https://www.ase.com.jo/en/library-and-

publications?publication_category=16&page=0

Amman Stock Exchange (2014). ASE Annual report. 2014, Retrieved from

https://www.ase.com.jo/en/library-and-

publications?publication_category=16&page=0

Amman Stock Exchange (1999). ASE Annual report. Retrieved from

https://www.ase.com.jo/en/library-and-

publications?publication_category=16&page=2

Azouzi, M.A., & Jarboui, A. (2017). CEO Emotional Intelligence and Firm Dividend Policy:

Decision Tree Analysis. *International Journal of Monetary Economics and Finance*,

10(1), 24-46.

Babbie, E. (2010). *The practice of social research* (12th ed.). Wadsworth Cengage.

Baker, H. & Powell, Gary., (2000). Determinants of Corporate Dividend Policy: A Survey of

NYSE Firms. *Financial Practice & Education*. 10, 29-40.

Baker, H. K., Chang, B., Dutta, S., & Saadi, S. (2012). Why Firms Do Not Pay Dividends:

The Canadian Experience. *Journal of Business Finance & Accounting*, *39*(9-10),

1330-1356. doi: 10.1111/jbfa.12005

Baker, M., & Wurgler, J. (2004). A Catering Theory of Dividends. *The Journal of Finance*,

59(3), 1125-1165.

Baltagi, B.H, (2005). *Econometric Analysis of Panel Data*. (3rd ed.). John Wiley & Sons

Beiner, S., Drobetz, W., Schmid, M.M., & Zimmermann, H. (2006). An Integrated

Framework of Corporate Governance and Firm Valuation. *European Financial

Management*, *12*(2), 249-283. doi:10.1111/j.1354-7798.2006. 00318.x

Bhattacharya, S. (1979). Imperfect Information, Dividend Policy, and "The Bird in the Hand" Fallacy. *The Bell Journal of Economics*, *10*, 259-270. doi:10.2307/3003330

Black, F. (1976). The Dividend Puzzle. *Journal of Portfolio Management*, *2*, 5-8.

Black, F., & Scholes, M.S. (1974). The Effects Of Dividend Yield And Dividend Policy On Common Stock Prices And Returns. *Journal of Financial Economics*, *1*, 1-22.

Bloomberg, L. D., & Volpe, M. (2016). *Completing your qualitative dissertation: A road map from beginning to end.* Sage.

Bodla, B. S., Pal, K., & Sura, J. S. (2007). Examining The Application Of Lintner's Dividend Model In The Indian Banking Industry. *The ICFAI Journal of Bank Management*, *6*(4), 40-59.

Bonett, D. G., & Wright, T. A. (2015). Cronbach's Alpha Reliability: Interval Estimation, Hypothesis Testing, and Sample Size Planning. *Journal of Organizational Behavior*, *36*(1), 3-15.

Booth, L., & Zhou, J. (2017). Dividend Policy: A Selective Review of Results From Around The World. *Global Finance Journal*, *34*, 1. doi: 10.1016/j.gfj.2017.07.002

Boţoc, C., & Pirtea, M. (2014). Dividend Payout-Policy Drivers: Evidence From Emerging Countries. *Emerging Markets Finance and Trade*, *50*(supl4), 95-112.

Brealey, R.A., Myers, S.C., Allen, F., & Mohanty, P. (2012). *Principles of corporate finance.* Tata McGraw-Hill Education.

Breusch, T. S., & Pagan, A. R. (1980). The Lagrange Multiplier Test and Its Applications to Model Specification in Econometrics. *Review of Economic Studies*, *47*, 239-254.

Budiarso, N. (2018). The Signals of Dividend. *Accountability Journal*, *7*, 42-47. doi:10.32400/ja.24806.7.01.2018.42-47

Byrne, B.M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.

Cadbury, A. (1992). *Report of the Committee on the Financial Aspects of Corporate Governance.* Gee & Co. Ltd.

Calder A (2008). *Corporate Governance. A practical guide to the legal frameworks and international codes of practice*. Kogan Page Press.

Chambers, C. (2006). "Who needs stock exchanges?" *MondoVisione.com*. Retrieved November 03, 2019, http://www.mondovisione.com/exchanges/handbook-articles/who-needs-stock-exchanges/.

Cheng, Z., Cullinan, C. P., & Zhang, J. (2014). Free Cash Flow, Growth Opportunities, and Dividends: Does Cross-Listing Of Shares Matter? *Journal of Applied Business Research*, *30*, 587-598.

Chiang, H. T., & Chia, F. (2005). An Empirical Study of Corporate Governance and Corporate Performance. *Journal of American Academy of Business*, *6*(1), 95-101.

Claessens, S. (2006). Corporate Governance and Development. *The World Bank Research Observer*, *21*(1), 91-122.

Cohen, G., & Yagil, J. (2008). On the Catering Theory Of Dividends and The Linkage Between Investment, Financing, and Dividend Policies. *International Research Journal of Finance and Economics*, *17*, 33-39.

Cohen, J. (1988). *Statistical Power for Behavioral Sciences*. (2nd ed.). Academic Press.

Crawford, M. (2014). *Strengths and limitations of correlational design*. Sage. doi:10.13140/RG.2.1.4195.7920

Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating qualitative and quantitative research* (4th ed.). Pearson.

Crutchley, C. E., & Hansen, R. S. (1989). A Test of The Agency Theory of Managerial Ownership, Corporate Leverage, And Corporate Dividends. *Financial Management*, 36-46. doi:10.2307/3665795

Cummings TG, Worley CG (2005). Organization development and change.Washington, DC: Thomsons South-Western Publisher.

Dąbrowska, J.F., Sawicka, M.M., & Ulrichs, M. (2019). Determinants of Dividend Payout Decisions: The Case of Publicly Quoted Food Industry Enterprises Operating in Emerging Markets. *Economic Research-Ekonomska Istraživanja*, 1-22. doi:10.1080/1331677X.2019.1631201

DeAngelo, H., & DeAngelo, L. (1990). Dividend Policy and Financial Distress: An Empirical Investigation of Troubled NYSE Firms. *The Journal of Finance*, *45*(5), 1415-1431.

Demsetz, H. (1983). The Structure of Ownership and The Theory of the Firm. *The Journal of Law and Economics*, *26*(2), 375-390.

Dionne, G., & Ouederni, K. (2011). Corporate Risk Management and Dividend Signaling Theory. *Finance Research Letters*, *8*(4), 188-195. doi:10.1111/1540-6261.00428

Dorsman, A. B., van Montfort, C. A. G. M., & Vink, I. (1999). An adjusted Lintner-model for The Netherlands. *(VU Research Memorandum;* No. 1999-20). Financiering & Bedrijfskunde vd Fin. Sector (FBFS).

Easterbrook, F H. (1984). Two Agency-Cost Explanations of Dividends. *The American Economic Rev*iew, *74*(4), 650-659.

Eckbo, B.E., & Verma, S. (1994). Managerial Share Ownership, Voting Power, and Cash Dividend Policy. *Journal of Corporate Finance*, *1*, 33-62.

Faber, J., & Fonseca, L.M. (2014). How Sample Size Influences Research Outcomes. *Dental Press Journal of Orthodontics*, *19*(4), 27-29.

Fama, E.F., & Babiak, H. (1968). Dividend Policy: An Empirical Analysis. *Journal of the American Statistical Association*, *63*(324), 1132-1161.

Fama, E.F., & French, K.R. (2002). The Equity Premium. *The Journal of Finance*, *57*(2), 637-659.

Farinha, J. (2003). Dividend Policy, Corporate Governance, and the Managerial Entrenchment Hypothesis: An Empirical Analysis. *Journal of Business Finance & Accounting*, *30*(9-10), 1173-1209. doi:10.1111/j.0306-686X.2003. 05624.x

Finkelstein S., Hambrick D.C., & Cannella, S.A. (2008). *Strategic leadership: Theory and research on executive*. Oxford University Press.

Firth, M., Gao, J., Shen, J., & Zhang, Y. (2016). Institutional Stock Ownership and Firms' Cash Dividend Policies: Evidence from China. *Journal of Banking & Finance*, *65*, 91-107. doi: 10.1016/j.jbankfin.2016.01.009

Frankfurter, G. M., & Wood Jr, B. G. (2002). Dividend Policy Theories and Their Empirical Tests. *International Review of Financial Analysis*, *11*(2), 111-138.

Freedman, R. S. (2006). *Introduction to financial technology*. Elsevier

Friend, I., & Puckett, M. (1964). Dividends and Stock Prices. *The American Economic Review*, *54*(5), 656-682.

Gadhoum, Y. (2005). Family Control and Grouping: Possible Expropriation via Dividends. *Centre de Recherche en Gestion.* Retrieved from http://www.fin.ntu.edu.tw/~conference2002/proceding/7-2.pdf

Ghosh, C., & Sun, L. (2014). Agency Cost, Dividend Policy And Growth: The Special Case Of REITs. *Journal of Real Estate Finance & Economics*, *48*(4), 660-708. doi:10.1007/s11146-013-9414-3

Goffee R, Jones G (2006). *Why should anyone be led by you*? Harvard Business School.

Gonedes, N.J. (1978). Corporate Signaling, External Accounting, and Capital Market Equilibrium: Evidence on Dividends, Income, and Extraordinary Items. *Journal of Accounting Research*, 26-79.

153

Gonzalez, M., Molina, C.A., Pablo, E., & Rosso, J.W. (2017). The Effect of Ownership Concentration and Composition on Dividends: Evidence from Latin America. *Emerging Markets Review*, *30*, 1-18. doi: 10.1016/j.ememar.2016.08.018

Greene, W. H. (2003). *Econometric analysis*. Prentice-Hall.

Gujarati, D. N. (2003). *Basic econometrics* (4th ed.). Irwin/McGraw-Hill.

Guo, J. (2016). Ultimate Controlling Shareholders and Dividend Payout Policy in Chinese Stock Market. *Review of Pacific Basin Financial Markets* and *Policies, 19* (2).

Hair Jr, J.F., Black, J.W., Babin, B.J., & Anderson, E.R. (2010). *Multivariate data analysis.* (7th ed.). Pearson Education Limited. (pp. 1–758).

Han, K. C., Lee, S. H., & Suk, D. Y. (1999). Institutional Shareholders and Dividends. *Journal of Financial and Strategic Decisions*, *12*(1), 53-62.

Hannigan, A., & Lynch, C. D. (2013). Statistical Methodology in Oral and Dental Research: Pitfalls and Recommendations. *Journal of Dentistry*, *41*(5), 385-392.

Harada, K., & Nguyen, P. (2009). Ownership Concentration, Agency Conflicts, and Dividend Policy In Japan. *Agency Conflicts and Dividend Policy in Japan* (August 21, 2009). Retrieved from

https://www.researchgate.net/publication/228252570_Ownership_Concentration_Agency_Conflicts_and_Dividend_Policy_in_Japan

He, W., Ng, L., Zaiats, N., & Zhang, B. (2017). Dividend Policy and Earnings Management across Countries. *Journal of Corporate Finance*, *42*, 267-286.

Hussainey, K., & Aal-Eisa, J. (2009). Disclosure and Dividend Signaling when Sustained Earnings Growth Declines. *Managerial Auditing Journal*, *24*(5), 445-454.

Iqbal, M., Dzulkirom AR, M., & Darmawan, A. (2018). The Effect of Share Ownership Structure to The Dividend Policy and Corporate Value of The Manufacturing Company Listed in Indonesia Stock Exchange. Wacana Journal of Social and

Humanity Studies, 21(3). Retrieved from

https://wacana.ub.ac.id/index.php/wacana/article/view/549

Ismail, I.S., Palil, M.R., Ramli, R., & Abdul Rahman, M.R.C. (2018). Effects of Dividend Tax Reform on Dividend Behavior: A Clientele Theory Approach. *Jurnal Pengurusan*, *54*, 1-20.

Jabbouri, I. (2016). Determinants of Corporate Dividend Policy in Emerging Markets: Evidence from MENA Stock Markets. *Research in International Business and Finance*, *37*, 283-298. doi: 10.1016/j.ribaf.2016.01.018

Jain, P., & Chu, Q. (2014). Dividend Clienteles: A Global Investigation. *Review of Quantitative Finance & Accounting*, *42*(3), 509-534. doi:10.1007/s11156-013-0351-2

Jensen, G.R., Solberg, D.P., & Zorn, T.S. (1992). Simultaneous Determination of Insider Ownership, Debt, and Dividend Policies. *Journal of Financial and Quantitative Analysis*, *27*(2), 247-263.

Jensen, M. (1986). Agency Cost, Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review*, *76*(2), 323-329.

Jensen, M., & Meckling, W. (1976). The Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics*, *3*(4), 305-360. *Journal of Business*, *4*.

Jordan Security Commission. (2020) SC, About JSC. Retrieved 11-30-2020 from https://www.jsc.gov.jo/page/en/about_jsc

Kaiser, K. (2009). Protecting Respondent Confidentiality in Qualitative Research. Qualitative Health Research, *19*(11), 1632-1641. doi:10.1177/1049732309350879

Kaplan R.S., Norton D.P. (2006). *Alignment. Using the Balance Scorecard to Create Corporate Synergies.* Harvard Business School Press.

Karathanassis, G. and Chrysanthopoulou, E. (2005). The Relationship between Ownership
  Structure and Corporate Dividend Policy - Evidence from the Athens Stock
  Exchange. Available at SSRN: https://ssrn.com/abstract=813024 or
  http://dx.doi.org/10.2139/ssrn.813024

Khan, M.K., Ali, R., & Tariq, S. (2018). Impact of Ownership Structure on Corporate
  Dividend Policy and Performance. *KASBIT Business Journal*, *11*, 110.

Khan, M.N., & Shamim, M. (2017). *A Sectoral Analysis of Dividend Payment Behavior:*
  Evidence from Karachi Stock Exchange. SAGE
  Open. https://doi.org/10.1177/2158244016682291

Khatib, S.F.A., & Al-Harethi, A.A.M. (2018). Factors Affecting the Payout Policies of
  Companies Listed on the Jordanian Stock Exchange Market. *International Journal of*
  Psychology and Cognitive Science, *4*(4), 155-167.

Kissel, R., Regenscheid, A., Scholl, M., & Stine, K. (2014), Guidelines for Media
  Sanitization. Special Publication 800-88 Revision 1*National Institute of Standards*
  and Technology. Retrieved from http://dx.doi.org/10.6028/NIST.SP.800-88r1

Kouki, M., & Guizani, M. (2009). Ownership structure and dividend policy evidence from
  the Tunisian Stock Market. *European Journal of Scientific Research*, *25*(1), 42-53.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate Ownership around the
  World. *The Journal of Finance*, *54*(2), 471-517. doi:10.2139/ssrn.103130

Lachmann, M., Trapp, I., & Trapp, R. (2017). Diversity and Validity in Positivist
  Management Accounting Research: A Longitudinal Perspective over Four Decades.
  Management Accounting Research, *34*, 42-58. doi: 10.1016/j.mar.2016.07.002

Landrum, B., & Garza, G. (2015). Mending Fences: Defining the Domains and Approaches
  of Quantitative and Qualitative Research. *Qualitative Psychology*, *2*(2), 199-209. doi:
  http://dx.doi.org/10.1037/qup0000030

Lang. H.P., & Litzenberger. R.H. (1989). Dividend Announcements: Cash Flow Signaling vs. Free Cash Flow Hypothesis. *Journal of Financial Economics*, *24*, 181-191.

Leedy, P.D. & Ormrod, J.E. (2010). *Practical research: Planning and design*. (9th ed.). Pearson.

Lev, B. (1989). On the Usefulness of Earnings and Earnings Research: Lessons and Directions from Two Decades of Empirical Research. *Journal of Accounting Research*, Supplement 27, 153-201.

Lin, S.H., Lai, H.H., & Hsu, A.C. (2018). How Does Asymmetric Information Affect Catering Behavior? *Emerging Markets Finance & Trade*, *54*(11), 2433-2454. doi:10.1080/1540496X.2018.1458611

Linter, J. (1956). Distribution of Incomes of Corporations among Dividends Retained Earnings and Taxes. *American Economic Review*, *46*(3), 97-113.

Liu, C., & Chen, A.S. (2015). Do Firms Use Dividend Changes to Signal Future Profitability? A Simultaneous Equation Analysis. *International Review of Financial Analysis*, *37*, 194. doi: 10.1016/j.irfa.2014.12.001

Liu-Thompkins, Y., & Malthouse, E.C. (2017). A Primer on Using Behavioral Data for Testing Theories in Advertising Research. *Journal of Advertising*, *46*(1), 213-225.

Long Jr, J. B. (1978). The Market Valuation of Cash Dividends: A Case to Consider. *Journal of Financial Economics*, *6*(2-3), 235-264.

Lu, X., Xi, Y., & Lu, D. (2014). An Empirical Study about Catering Theory of Dividends: The Proof From Chinese Stock Market. *Journal of Industrial Engineering and Management (JIEM)*, *7*(2), 506-517. doi:10.3926/jiem.1013

Manneh, M.A., & Naser, K. (2015). Determinants of Corporate Dividend Policy: Evidence from an Emerging Economy. *International Journal of Economics and Finance*, *7*(7), 229-240.

Manos, R. (2003). Dividend Policy and Agency Theory: Evidence from Indian Firms. *South Asia Economic Journal*, *4*(2), 275-300.

Maxwell, J.A. (2008). Designing a Qualitative Study. *The SAGE handbook of applied social research methods*, *2*, 214-253. doi:10.4135/9781483348858.n7

Mehrani, S., Moradi, M., & Esk, H. (2011). Ownership Structure and Dividend Policy: Evidence from Iran. *African Journal of Business Management*, *5*(17), 7516-7525.

Miller, M., & Modigliani, F. (1961). Dividend Policy, Growth, and the Valuation of Shares. *The Journal of Business*, *34*(4), 411-433.

Miller, M., & Rock, K. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance*, *40*(4), 1031-1051. doi:10.2307/2328393

Mitton, T. (2005). Corporate Governance and Dividend Policy in Emerging Markets. *Emerging Markets Review*, *5*, 409-426. doi: 10.1016/j.ememar.2004.05.003

Moh'd, M.A., Perry, L.G., & Rimbey, J.N. (1995). An Investigation of the Dynamic Relationship between Agency Theory and Dividend Policy. *Financial Review*, *30*(2), 367-385.

Mollah, S., Keasey, K., & H. Short, H. (2000). " The influence of Agency costs on dividend policy in an emerging market: Evidence from the Dhaka stock Exchange " working paper, Leeds university Business school

Muijs, D. (2010). *Doing quantitative research in education with SPSS* (2nd ed.). Sage.

Munyua, P. N. (2014). Effect of Dividend Policy on Stock Prices for Firms Listed at the Nairobi Stock Exchange. (Unpublished MBA Thesis). University of Nairobi

Musa, I. F. (2009). The Dividend Policy of Firms Quoted at the Nigeria Stock Exchange: An Empirical Analysis. *African Journal of Business Management*, *3*(10).

Myers, M., & Frank, B. (2004). The Determinants of Corporate Dividend Policy. *Academy of Accounting and Financial Studies Journal*, *8*(3), 17-28.

Myers, S.C., & Majluf, N.S. (1984). Corporate Financing and Investment Decisions when Firms Have Information That Investors Do Not Have. *Journal of Financial Economics*, *13*(2), 187-221. doi:10.1016/0304-405X (84)90023-0

Nichols, D.C., &Wahlen, J.M. (2004). How Do Earnings Relate To Stock Returns? A Review of Classic Accounting Research with Updated Evidence. *Accounting Horizons*. *18*(4), 263-286.

Nnadi, M. & Wogboroma, N., & Kiabel, B. (2013). Determinants of Dividend Policy: Evidence from Listed Firms in the African Stock Exchanges. *Panoeconomicus*. 60, 725-741. 10.2298/PAN1306725N.

O'Sullivan, A., & Sheffrin, S.M. (2003). *Economics: Principles in action*. Pearson Prentice Hall. p. 283. ISBN 0-13-063085-3.

Pahi, D., & Yadav, I. S. (2018). Role of Corporate Governance in Determining Dividend Policy: Panel Evidence from India. *International Journal of Trade, Economics and Finance*, *9*(3), 111-115. doi:10.18178/ijtef.2018.9.3.598.

Park, J., & Park, M. (2016). Qualitative versus Quantitative Research Methods: Discovery or Justification? *Journal of Marketing Thought*, *3*, 1-7. doi:10.15577/jmt.2016.03.01.1

Pepper, A., & Gore, J. (2015). Behavioral Agency Theory: New Foundations For Theorizing about Executive Compensation. *Journal of Management*, *41*, 1045-1068. doi:10.1177/0149206312461054

Popoveniuc, B. (2014). Self-Reflexivity. The Ultimate End of Knowledge. *Procedia - Social and Behavioral Sciences*, 163, 204-213. doi: 10.1016/j.sbspro.2014.12.308

Privitera, G.J. (2013). *Research methods for the behavioral sciences.* Sage.

Raaballe, J., & Bechmann, K.L. (2002). Taxable Cash Dividends: A Useful Waste of Money. (Management Working Paper). *University of Aarhus.* doi:10.2139/ssrn.302471

Ramachandran, A., & Packkirisamy, V. (2010). The Impact of Firm Size on Dividend Behavior: A Study with Reference to Corporate Firms across Industries In India. *Managing Global Transitions: International Research Journal*, *8*(1), 49-78.

Repealed Instructions of Disclosure; Accounting, Auditing Standards, and the Conditions to be fulfilled in Auditors of the Entities Subject to Securities Commission's Supervision (No 1) 1998 (Jordan) arts 24.A, 26, JSC, September 1, 1998.

Repealed Securities Law (No 23) 1997, art 23, published in the Official Newspaper, No 4204, May 15, 1997, p2185 (Repealed Securities Law 1997).

Roy, A. (2015). Dividend Policy, Ownership Structure and Corporate Governance: An Empirical Analysis of Indian Firms. *Indian Journal of Corporate Governance*, *8*, 1-33. doi:10.1177/0974686215574422

Rozeff, M.S. (1982). Growth, Beta, and Agency Costs as Determinants of Dividend Payout Ratios. *Journal of Financial Research*, *5*(3), 249-259.

Sakinc, I., & Gungor, S. (2015). The Relationship between Ownership Structure and Dividend: An Application in Istanbul Stock Exchange. *Journal of Economics and Development Studies*, *3*(4), 19-30.

Sakir, A., & Fadli, M. (2014). Influence of Managerial Ownership, Debt Policy, Profitability, Firm Size, and Free Cash Flow on Dividend Policy. *Delhi Business Review*, *15*(1), 15-22.

Salkind, N. J. (2010). *Encyclopedia of research design.* Sage. doi:10.4135/9781412961288

Schönbrodt, F.D., & Perugini, M. (2013). At What Sample Size Do Correlations Stabilize? *Journal of Research in Personality*, *47*(5), 609-612.

Schooley, D.K., & Barney Jr, L.D. (1994). Using Dividend Policy and Managerial Ownership to Reduce Agency Costs. *Journal of Financial Research*, *17*(3), 363. doi:10.1111/j.1475-6803. 1994.tb00198.x

Scott, D., & Martin, J. (1975). Industry Influence on Financial Structure. *Financial Management*, *4*(1), 67-73. Retrieved from http://www.jstor.org/stable/3665473

Securities Law (No 76) 2002 (Jordan) December 31, 2002, *Official Newspaper*, No 4579, December 31, 2002, 6218 (*Securities Law 2002*).

Shanmuganathan, M. (2018). Corporate Governance Relationship with Strategic Management: A Longitudinal Case Analysis of RELX Group (Elsevier). *International Journal of Comparative Management*, *1*(3), 273-294.

Sharma A., (2001, October). New Dimensions in Corporate Governance. *The Chartered Accountant*, p. 440-444.

Shchurina, S., & Mustafina, E. (2018). Dividend Policy and Its Influence on the Cost of Capital. *Journal of Reviews on Global Economics*. 7. 790-796.

Shen, W., & Gentry, R.J. (2014). A Cyclical View of the Relationship between Corporate Governance and Strategic Management. *Journal of Management and Governance*. 18(4), 959- 973 doi:10.1007/s10997-012-9248-z.

Shleifer, A., & Vishny, R. W. (1986). Large Shareholders and Corporate Control. *Journal of Political Economy*, *94*(3), 461-488.

Shleifer, A., & Vishny, R. W. (1997). A Survey of Corporate Governance. *The Journal of Finance*, *52*(2), 737-783.

Short, H., Zhang, H., & Keasey, K. (2002). The Link between Dividend Policy and Institutional Ownership. *Journal of Corporate Finance*, *8*(2), 105-122.

Sindhu, M.I., Hashmi, S.H., & Ul Haq, E. (2016). Impact of Ownership Structure on Dvidend Payout in Pakistani Non-financial Sector. *Cogent Business & Management*, *3*(1), 1272815. doi:10.1080/23311975.2016.1272815

Skinner, D. J. (2006, May). "The Evolving Relation between Earnings, Dividends, and Stock Repurchases". *Graduate School of Business, University of Chicago*.

Smith, Jr, C.W., & Watts, R.L. (1992). The Investment Opportunity Set and Corporate

Financing, Dividend, and Compensation Policies. *Journal of Financial Economics*,

32(3), 263-292.

Sprent, P. & Smeeton, N. (2000). *Applied nonparametric statistical methods.*Chapman &

Hall/CRC. (4ᵗʰ ed.).

Stangor, C. (2014). *Research methods for the behavioral sciences.* Nelson Education

Stulz, R. (1990). Managerial Discretion and Optimal Financing Policies. *Journal of Financial

Economics*, *26*(1), 3-27.

Taylor, J., & Spurlock, D. (2018). Statistical Power in Nursing Education Research. *Journal

of Nursing Education*, *57*(5), 262-264. doi:10.3928/01484834-20180420-02

Templeton G.FBurney L.L. (2016). Using a Two-Step Transformation to Address

Nonnormality from a Business Value of Information Technology Perspective. Journal

of Information Systems. *31*(2):149–64. https://doi.org/10.2308/isys-51510.

The Sage handbook of quantitative methods in psychology (2009). . Sage Publications Ltd,

Thousand Oaks, CA. http://dx.doi.org/10.4135/9780857020994

Ting, I.W K., Kweh, Q.L., & Somosundaram, K. (2017). Ownership Concentration, Dividend

Payout and Firm Performance: The Case of Malaysia. *Malaysian Journal of

Economic Studies*, *54*(2), 269-280.

Trabelsi, D., Aziz, S., & Lilti, J. J. (2019). A Behavioral Perspective on Corporate Dividend

Policy: Evidence from France. *Corporate Governance: The International Journal of

Business in Society*, *19*(1), 102-119. doi

Tricker, R.I. (1984). *Corporate governance*. Gower.

Trochim, W.M., & Donnelly, J.P. (2008). *Research methods knowledge base*. Cengage

Learning.

Tse, C.B. (2005). Use Dividends to Signal or Not: An Examination of the UK Dividend Payout Patterns. *Managerial Finance*, *31*(4), 12-33.

Vo, D.H., & Nguyen, V.T.Y. (2014). Managerial Ownership, Leverage, and Dividend Policies: Empirical Evidence from Vietnam's Listed Firms. *International Journal of Economics and Finance*, *6*(5), 274.

Vogt, W.P., Gardner, D. C., & Haeffele, L.M. (2012). *When to use what research design*. The Guilford Press,. Retrieved from http://cucproxy.cuchicago.edu/login?url=https://search.proquest.com/docview/1022252706?accountid=27800

Vogt, W.P., Gardner, D.C., Haeffele, L. M., & Vogt, E. R. (2014). Selecting the right analyses for your data: Quantitative, qualitative, and mixed methods. The Guilford Press Retrieved from https://search-proquest-com.cucproxy.cuchicago.edu/legacydocview/EBC/1683360?accountid=27800.com

Warrad, L., Abed, S., Khriasat, O., & Al-Sheikh, I. (2012). The Effect of Ownership Structure on Dividend Payout Policy: Evidence from Jordanian Context. *International Journal of Economics and Finance*, *4*(2), 187-195.

Watts, R. (1973). The Information Content of Dividends. *Journal of Business*, *46*(2), 191-211.

Waud, R. (1966). Small Sample Bias Due to Misspecification in the 'Partial Adjustment' and Adapted Expectations' Models. *Journal of the American Statistical Association*, *61*(316), 1130-1152.

Zellmer-Bruhn, M., Caligiuri, P., & Thomas, D. C. (2016). Experimental Designs in International Business Research. *Journal of International Business Studies*, *47*, 399-407. doi:10.1057/jibs.2016.12

Zientek, L., Nimon, K., & Hammack-Brown, B. (2016). Analyzing Data from a Pretest-Posttest Control Group Design: The Importance of Statistical Assumptions. *European Journal of Training and Development*, *40*(8-9), 638-659.

Zurigat, Z., & Gharaibeh, M. (2011). Do Jordanian Firms Smooth Their Dividends? Empirical Test of Symmetric and Asymmetric Partial Adjustment Models. *International Research Journal of Finance and Economics*, *81*, 160-172.

ProQuest Number: 28313984

ProQuest.

ProQuest 28313984