INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ACCOUNTING, FINANCE AND MANAGEMENT SCIENCES

OPEN ACCESS JOURNAL

Vol 14, Issue 4, (2024) E-ISSN: 2225-8329

Determinants of Dividend Policy: The Roles of Liquidity and Leverage in Jordan's Public Firms

Mohammad Alshakhanbeh, Anwar Allah Pitchay, Md Aslam Mia, Rami Nairoukh

School of Management, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia

Email: anwarap@usm.my

To Link this Article: http://dx.doi.org/10.6007/IJARAFMS/v14-i4/23484 DOI:10.6007/IJARAFMS/v14-i4/23484

Published Online: 30 November 2024

Abstract

This study explored the determinants of dividend policy, focusing on the roles of liquidity and leverage in Jordan's publicly listed service firms. Utilizing data from 38 companies over the period 2011-2021, this analysis employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess the relationships between liquidity, leverage, and dividend policy, with firm size and age as control variables. Findings reveal a significant negative relationship between liquidity and dividend policy, suggesting that Jordanian service firms prefer to retain cash internally. This behavior aligns with the pecking order and agency cost theories, where internal funds are prioritized for operational stability over dividend distribution. In contrast, leverage, particularly long-term debt, shows a positive influence on dividend policy, implying that highly leveraged firms are more likely to pay dividends as a signal of financial health and to reduce agency conflicts. The control variables, firm size and age, also exhibit significant effects on dividend policy, with larger and older firms showing a tendency toward lower dividend payouts, possibly due to their focus on reinvestment and long-term growth. This study contributes to the understanding of dividend policy determinants within Jordan's service sector, underscoring the strategic roles of liquidity, leverage, and firm-specific characteristics in a developing economy.

Keywords: Liquidity, Leverage, Dividend Policy

Introduction

Debt and liquidity are crucial financing sources that shape firms' financial choices and significantly influence dividend policy. In high-inflation countries, lower demand for future cash flows often affects liquidity, leading lenders to prioritize short-term credit over long-term options. While debt offers benefits such as tax-deductible interest that can enhance business performance, excessive debt without proper repayment poses risks of financial distress and bankruptcy (Hongli et al., 2019). Liquidity and leverage impact a firm's self-financing and investment capabilities, as dividends, being paid from operating cash, directly affect both investment opportunities and reinvestment capacity (Kanakriyah, 2020). Managers determine dividend payouts based on financial constraints, investment

opportunities, company size, and regulatory context, seeking to balance operational funding with shareholder expectations to maximize wealth and provide fair returns (Yegon et al., 2014).

The strategic management of financial resources, particularly through liquidity and leverage, plays a pivotal role in shaping a firm's financial stability and long-term growth. In the context of dividend policy, these elements are crucial determinants that influence decisions regarding profit allocation, shareholder satisfaction, and operational continuity. Dividend policy is not merely a reflection of profitability but also a strategic tool to balance competing demands for internal reinvestment and external shareholder returns (Nissim & Ziv, 2001). This is especially significant in developing economies, where firms face unique challenges such as restricted access to financing and high borrowing costs (Abbas et al., 2021). Notably, over 70% of Jordanian firms report financing obstacles, highlighting the need for financial strategies that optimize resource use and support sustainability (DRBE, 2020).

In developing economies, such as Jordan, dividend policy is shaped by factors similar to those affecting firms in developed countries, such as leverage, profitability, business risk, asset structure, growth rate, and firm size (Al-Najjar, 2009). These specific factors not only affect the probability of dividend payments, but also drive the direction of the policy. In addition, theories such as pecking order and agency cost suggest that dividend policy is a pivotal axis in balancing liquidity, financing, and profitability strategies, illustrating its multidimensional impact on corporate financial management.

In Jordan, while no specific laws restrict dividend distribution for industrial and service companies, the 1997 Companies Law addresses dividend decisions. Article 171 requires that a public joint-stock company's general assembly review the annual budget, profit and loss statement, and the board’s profit distribution proposals, including any reserves mandated by law or contract (Bataineh, 2021). Many researchers have highlighted the essential role of dividend policy in managing a company's debt and liquidity levels and its subsequent effect on financial performance. Damayanti & Sucipto (2022), and Al-Najjar & Kilincarslan (2019), discuss how dividend policy pressures managers to allocate profits in a way that satisfies shareholders. This distribution can diminish available liquidity, sometimes compelling firms to borrow for project financing, thereby raising financial risks that impact overall performance. The complexity of these decisions leads researchers to describe dividend policy as a puzzle.

The Central Bank of Jordan (2022) reported recent interest rate hikes to stabilize the value of the Jordanian dinar. This monetary policy move poses challenges for Jordanian companies, as borrowing now involves higher costs, increasing financial risks. Higher loan expenses put additional pressure on company liquidity, forcing companies to prioritize debt repayment over taking advantage of profitable investment opportunities. Consequently, Jordanian service companies face the dual pressures of maintaining liquidity and managing high borrowing costs, which can limit their ability to grow and operational flexibility. Figure 1 illustrates the debt levels of the Jordanian service sector.

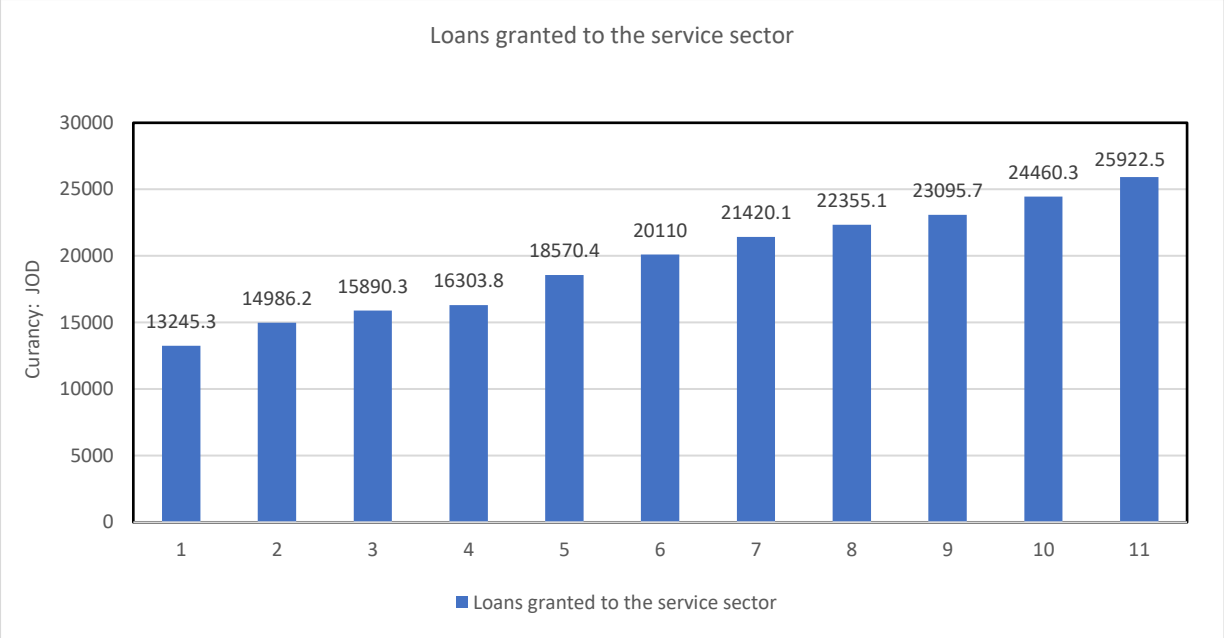

Figure 1. Loans granted to the service sector, Central Bank of Jordan (2022)

Liquidity plays a major role in the survival and success of any business organization's operations; therefore, in order to operate efficiently and effectively, financial managers and entity owners must show a great deal of interest in the company's performance results. In other words, liquidity refers to the organization's ability to strategically manage and focus on maintaining effective levels of current assets and current liabilities so that the company can obtain a steady flow of cash to meet its short-term obligations and thus continue to exist in the foreseeable future (Abu Shaaban, 2017). Figure 2 illustrates the liquidity fluctuations in the Jordanian services sector, which makes it difficult to adopt a clear policy for dividend distribution and debt management due to liquidity fluctuations.

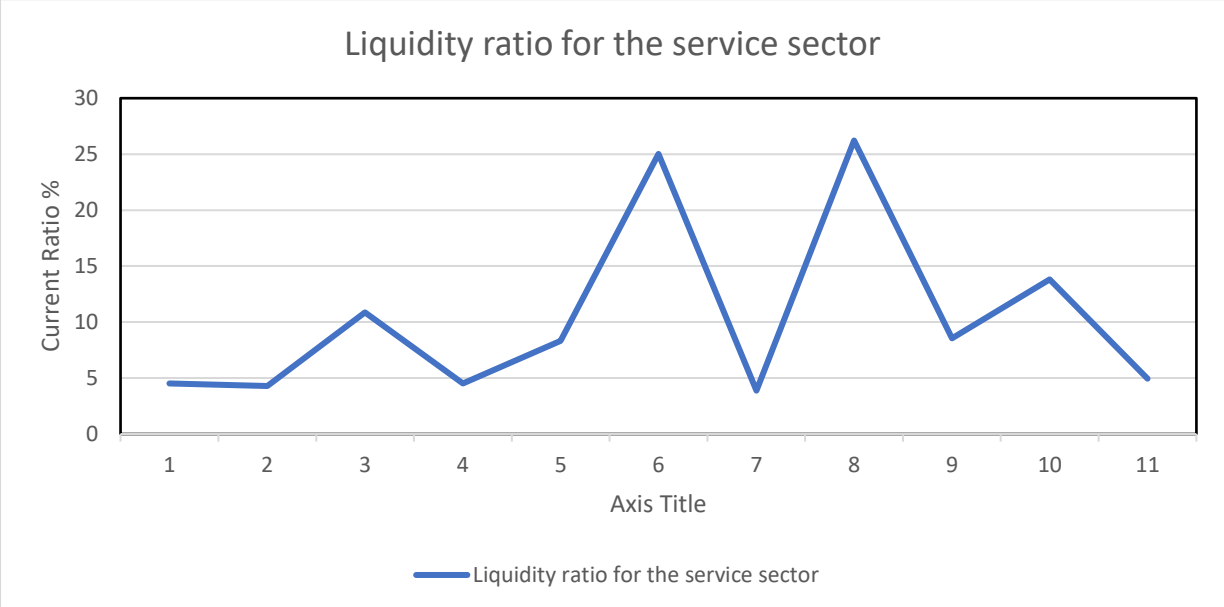

Figure 2. Liquidity Ratio for the service sector, ASE (2022)

The Jordanian service sector represents a cornerstone of the national economy, contributing approximately 22.2% to the GDP and employing 42.5% of the workforce (Jordanian Ministry of Investment, 2022). Despite its importance, this sector has faced financial instability, with many firms experiencing liquidity crises, bankruptcies, and mergers (Jordan Securities Depository Center, 2022). These challenges underscore the need for effective financial strategies that optimize resource allocation while ensuring sustainability. Notably, dividend policy in this sector remains underexplored, particularly in relation to liquidity and leverage. Most existing studies have focused on industrial firms, leaving a significant gap in understanding the unique dynamics within service companies (Zaytoun & Qadah, 2020; Al-Dahiyat et al., 2021). Most studies have measured dividend policy using dividend payout such as (Al-Najjar & KilincarslanBasil, 2019; Bataineh, 2021), and rarely used dividend yield, as the dividend yield indicator is considered an important indicator because it is the dividends paid to shareholders relative to the market value of the stock, while dividends are the dividends paid to shareholders relative to the profits per share, and therefore the dividend yield indicator is considered one of the indicators that show the result of investing in stocks. This indicator will be studied because it is useful for the objectives of this study. Previous research on this indicator is rare and is considered a research gap.

This study addresses the gaps and issues by investigating the determinants of dividend policy in the service sector in Jordan, with a focus on liquidity and leverage. In contrast to previous research, which primarily emphasizes profitability or market trends, this study provides an in-depth analysis of how liquidity and leverage affect dividend decisions. It also examines the role of firm-specific factors such as size and age, and presents a comprehensive framework that integrates theoretical perspectives such as pecking order and agency cost theories (Jensen and Meckling, 1976; Myers and Magluf, 1984).

The findings of this study hold practical significance for a wide array of stakeholders. For corporate managers, the insights can inform dividend strategies that align with financial constraints and shareholder expectations. Investors can gain a deeper understanding of dividend trends, aiding in portfolio optimization. Policymakers and regulatory bodies can also leverage this research to design frameworks that enhance transparency and stability within the sector. In sum, this study not only advances academic knowledge but also provides actionable insights to support the sustainable growth of Jordan's service sector.

Literature Review

The Pecking Order Theory

Myers (1977) proposed that firms prioritize internal funding, like retained earnings, over debt and consider equity issuance as a last resort due to its high costs and the desire to protect proprietary information. Solomon (1963), noted that while debt offers tax benefits, it also brings costs such as agency and bankruptcy costs, which managers must balance to maintain an optimal financial structure. The pecking order theory expands on the trade-off model, indicating that profitable firms often avoid debt, preferring internal funds for investments and dividends (Myers, 1984).

Dividend policy is vital in balancing liquidity and leverage. Stable dividends can meet shareholder expectations while preserving internal funds for operations and growth. However, high dividend payouts can deplete retained earnings, lowering liquidity and

increasing the need for external funding, often debt, to support new projects (Adedeji, 1998). This reliance on debt to maintain dividends raises leverage, showing how dividend policy, liquidity, and leverage are interconnected and integral to a firm's financial strategy and growth potential.

The Agency Cost Theory

Agency cost theory posits that conflicts between managers and shareholders can lead to costs when management goals diverge from shareholder interests. Jensen and Meckling (1976) highlighted two main conflicts: managers may prioritize personal gains over shareholder value, and debt can sometimes incentivize inefficient investments. Stulz (1988) argued that debt obligations enforce discipline by compelling managers to meet regular payments, curbing overinvestment. However, excessive debt might limit funds for profitable projects, leading to underinvestment.

Studies have validated agency cost theory in various contexts. Kim and Sorensen (1986) found a strong link between insider ownership and leverage, underscoring agency costs' role. Berger & Bonaccorsi (2006) concluded that leverage could enhance efficiency and reduce agency costs, particularly in firms with high agency risks. Conversely, Brounen et al. (2006) found minimal evidence of agency costs influencing capital structure in Europe. These findings highlight the need for liquidity management to mitigate agency issues, as excessive liquidity may lead managers to prioritize personal interests, especially where investor protections are weak (Opler et al., 1999).

The developed framework, as illustrated in Figure 3. The framework presents the impact of financial liquidity and financial leverage on dividend policy, using dividend yield as the measure of dividend policy. Financial liquidity, assessed through the current ratio and cash ratio, reflects the company's ability to meet its obligations. Financial leverage, measured by long-term and short-term debt, indicates the extent of the company's reliance on external financing. Both liquidity and leverage influence the firm's approach to dividend distribution, as maintaining sufficient liquidity and managing debt levels are crucial for sustaining dividend payouts. Additionally, firm size and firm age are included as control variables to account for any variations in dividend policy that may be influenced by the company's structural characteristics. This framework aims to analyze how liquidity and leverage factors shape dividend policy in the context of corporate financial management.

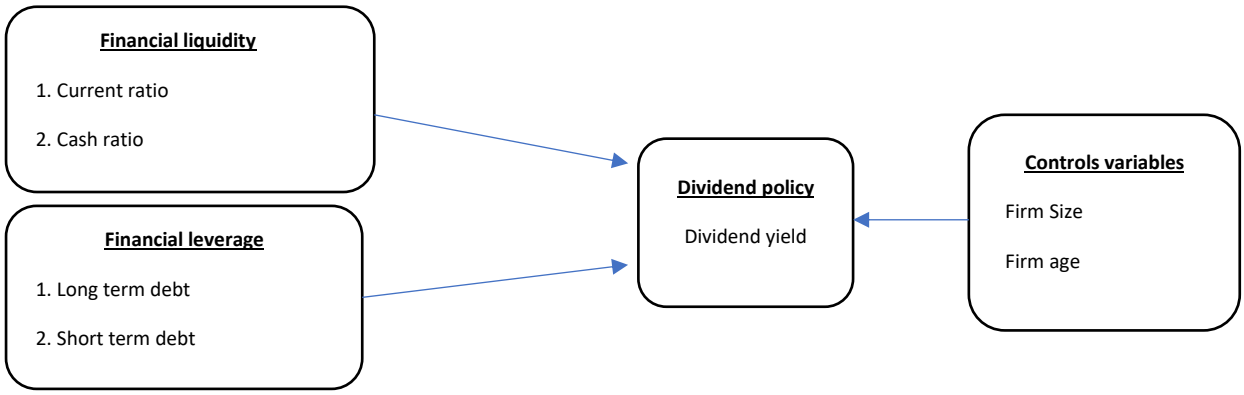

Figure 3: Research Framework

Dividend distribution is one of the important topics, and it is one of the common elements between management and investors, as it is the result of management and planning processes, as defining profit distribution policies may lead to reviving financial performance through the loyalty of investors and not selling shares at a loss, and it also affects the company's liquidity and its need for debt. Here, the challenge appears for managers in balancing the dividend policy, liquidity, and debt, and their role on financial performance. Many researchers have also pointed out this importance, such as (Sari et al 2022; Hoang et al., 2020).

Dividend payments and leverage policies, according to Agrawal and Jayaraman (2004), are substitute mechanisms for regulating the agency cost of free cash flow, which enhances performance. A company's level of activity will rise if its policy is to distribute dividends to shareholders at the end of each fiscal year in order to generate more income and have enough excess retained earnings to meet the standards established.

Santosa et al. (2020), its results showed that the companies' capital is sufficient to cover its obligations, which are usually paid before the distribution of profits in most cases. Due to the fact that the targeted dividend payments made by large corporations depend on agreements between management and shareholders for specific strategic reasons. The dividend policy is an integral part of the process of designing the financing structure on which the company relies to finance its projects, whether the financing sources are internal, such as retained earnings, or external, such as debts. According to (Hoang et al., 2020) a company's funding decision includes its dividend policy, which determines how much money will be paid out to shareholders and reinvested or retained in the business.

Making decisions regarding the financial leverage policy and dividend policy, is a delicate matter for all firms. Literature demonstrates that businesses take a pragmatic approach to designing their capital structures and make an effort to match them with their flexible business strategies that adapt to changes in the capital market conditions. (Brigham and Houston, 2016). Low dividend payments are typical for companies with high debt loads. This is due to the fact that the company must pay instalments and interest from the debt, requiring shareholders to give up the flow of money that was previously used to pay dividends in order to pay instalments and interest .Additionally, for dividend payments, the company must have cash on hand. Thus, the companies with good liquidity should find it simple to pay out larger dividends to their shareholders (Nurchaqiqi & Suryarini, 2018).

Balancing liquidity with dividend policy presents a major challenge for decision-makers, as dividend payouts can strain a company's financial and liquidity position, especially during financial hardships. Reduced liquidity may lead to underinvestment, causing missed profitable opportunities (Kim et al., 2021). Since dividends require cash, a company's liquidity directly impacts its ability to pay dividends, and poor liquidity may prevent payouts (Brigham & Houston, 2016; Santosa et al., 2020). Effective liquidity policies must account for dividend distribution, balancing investor satisfaction with reinvestment needs. Companies with strong liquidity are generally more capable of paying dividends, as liquidity supports debt repayment, reinvestment, and operational costs (Kanwal & Hameed, 2017).

Sari et al. (2022), analyzed the impact of profitability, liquidity, leverage, and activity ratios on dividend policies in food and beverage firms listed on the Indonesian Stock Exchange from 2016 to 2020. Their findings, using multiple linear regression and various statistical tests, showed that these financial ratios significantly affect dividend policies. High leverage, which involves significant fixed financing payments, often reduces dividend payouts as management prioritizes funds for future investments, establishing a negative correlation between leverage and dividend policy. This aligns with agency cost theory, which posits that managers may favor business growth over shareholder returns (Abdullah, 2021). In firms with high insider ownership, the need for dividends decreases, thereby lowering agency costs. In contrast, with dispersed ownership, agency costs increase, making dividends more likely (Kimutai, 2012).

Myers and Bacon (2004) shows that liquidity ratios and dividend payouts are inversely related. The more liquid a company is in the investment or growth phase, the more likely the company will invest to avoid paying dividends, they support pecking order theory Moreover, the picking order theory indicates that management's focus is on using liquidity for investment operations rather than distributing profits, because the long-term goal of management is to achieve the company's goals that maximize the owners' wealth through investments. Hence, the current study suggests that there is an interrelationship between the dividend policy, liquidity and leverage for the Jordanian service firms. Based on previous studies and theories, the following hypotheses were formulated:

H1: There is an negative effect of liquidity on divided policy of the Jordanian service firms.
Accordingly, the fourth hypotheses can be formulated into the following sub-hypotheses:
H1a: There is a negative effect of current ratio on divided policy of Jordanian service firms.
H1b: There is a negative effect of cash ratio on divided policy of Jordanian service firms.
H2: There is a positive effect of leverage on divided policy of the Jordanian service firms.
Accordingly, the fifth hypotheses can be formulated into the following sub-hypotheses:
H2a: There is a positive effect of short term debt on divided policy of Jordanian service firms.
H2b: There is a positive effect of long term debt on divided policy of Jordanian service firms.

Methodology

Data Selection and Collection

This study utilized secondary data from the Jordanian service sector, sourced primarily from the Amman Stock Exchange and the annual reports of the selected companies. Companies meeting specific criteria such as being within the defined study period and having accessible financial records were chosen for analysis.

Population and Sample

This study focuses on 38 companies operating in the Jordanian services sector listed on the Amman Stock Exchange over a ten-year period. The services sector was selected for its vital contribution to the Jordanian economy and its integral role in supporting various industries. It includes key areas such as healthcare, education, tourism, transportation, technology, communications, utilities, and energy. As the largest employer in Jordan, the sector relies heavily on the country’s human capital, highlighting its importance in driving economic growth and sustaining national development (Jordanian Ministry of Investment, 2022; Amman Chamber of Commerce, 2019).

Measurement and Operational Definition of Variables

Independent Variables

Liquidity

A company's liquidity is critical to its success. The capacity of a corporation to satisfy its short-term obligations and convert its assets into cash is referred to as liquidity. Short-term liquidity often refers to commitments that mature within one fiscal year. It also represents the business cycle: purchasing, selling, manufacturing, and collecting. A weak company or bankrupt firm is one that is unable to pay its creditors on time and continues to fail to honor its obligations to credit, service, and products providers. Inability to satisfy short-term liabilities may have an impact on the company's operations and, in many situations, its reputation (Allen & Bolton, 2004). This study used two indicators to measure liquidity:

Current Ratio: assesses a company's capacity to meet its short-term liabilities using its short-term assets. A higher current ratio reflects a stronger liquidity position, indicating that the firm is better prepared to manage its immediate financial obligations (Dahiyat et al., 2021; Brigham & Houston, 2021). It is calculated as:

$$\boldsymbol{Current\ Ratio} = \frac{Current\ Assets}{Current\ Liabilities}$$

Cash Ratio: is a stringent measure of liquidity, reflecting a company's ability to settle its short-term liabilities using only cash and cash equivalents. This ratio is particularly valuable for evaluating a firm's immediate solvency and is often relied upon by lenders to assess financial stability in extreme situations (Maisharoh & Riyanto, 2020; Batchimeg, 2017). It is calculated as:

$$\boldsymbol{Cash\ Ratio} = \frac{Cash}{Current\ Liabilities}$$

Leverage

Financial leverage refers to the use of debt to fund investments, with the expectation that the returns generated will exceed the debt costs, allowing the firm to generate profit after covering both principal and interest payments. High financial leverage, however, can reduce earnings per share, increasing financial risk for shareholders. Consequently, it is crucial for companies to consider an optimal capital structure when making financing decisions, ensuring that any increase in debt or preferred equity contributes positively to the firm's value (Dakua, 2019). This study used two indicators to measure leverage:

Short-Term Debt: This ratio indicates the percentage of a company's assets that are financed using debt that must be repaid within a year. A higher short-term debt ratio signals a greater dependence on short-term borrowing, which can heighten the company's financial risk (Mahmood et al., 2019; Nurwani & Syafina, 2022). It is calculated as:

$$\boldsymbol{Short\ term\ debt} = \frac{Short\ Term\ Debt}{Toal\ Assets}$$

Long-Term Debt: This ratio represents the share of a company's assets that is financed through debt obligations extending beyond one fiscal year. Long-term debt is generally used to fund substantial investments, and a higher long-term debt ratio may reflect significant

financial commitments, potentially affecting the company's profitability (Mahmood et al., 2019; Nurwani & Syafina, 2022). It is calculated as:

$$\textbf{Long term debt} = \frac{Long\ Term\ Debt}{Total\ Assets}$$

Dependent Variable

Dividend policy

Dividend policy is a strategy set by managers to decide the timing and amount of cash dividends distributed to shareholders. Influenced by factors such as financial constraints, investment opportunities, company size, shareholder expectations, and regulatory guidelines, dividend policy aims to maximize shareholder wealth by balancing returns with company growth (Yegon et al., 2014). This study used one indicator to measure Dividend policy:

Dividend Yield: This ratio represents the income earned annually from dividends for each dollar invested in a stock, mutual fund, or exchange-traded fund (Bustani, 2020; Marito & Sjarif, 2020). It is calculated as:

$$\textbf{Dividend Yield} = \frac{Dividend\ Per\ Share}{Share\ Price}$$

Control Variables

Control variables are included in the study to account for additional factors that may influence the results. These variables are:

Firm Size: is measured by the number of employees, serving as an indicator of the company's operational scale and capacity (Xie et al., 2022; Drempetic, 2020). It is calculated as:

Firm Size = Number of Employees

Firm Age: is measured by the number of years since the company was established, indicating its level of experience and stability (Rahman, 2022; Coad et al., 2013). It is calculated as:

Firm Age = The Year of the Research – The Year the firm Started.

Results and Analysis

Descriptive Statistics

Table 1 provides an overview of the descriptive statistics, including maximum, minimum, mean, and standard deviation values for a sample of Jordanian service companies over an 11-year period (2011-2021). The data, obtained from the Amman Stock Exchange and company annual reports, reflects key financial indicators essential for analyzing trends within the service sector.

Table 1
Descriptive Statistics

V	N	Minimum	Maximum	Mean	Std. Deviation
DP	418	.00	.09	.0299	.02826
CR	418	.11	2.92	1.1786	.64764
CHR	418	.00	1.33	.2771	.33568
SD	418	.02	.80	.2487	.16918
LD	418	.00	.28	.0543	.07261
SIZ	418	1.00	3830.00	624.52	766.54
AGE	418	2.00	83.00	21.40	16.19

Note: This table provides the descriptive statistics for the study variables. DP denotes Dividend policy. CR denotes Current ratio. CHR denotes Cash ratio. SD denotes Short term debt. LD denotes Long term debt. SIZ denotes the firm size. AGE denotes the firm age.

Based on the descriptive statistics provided, the Jordanian service companies exhibit diverse financial characteristics. In terms of Dividend Policy (DP), measured by dividend yield, has a mean of 0.0299 with a standard deviation of 0.02826. The narrow range from 0.00 to 0.09 indicates relatively consistent dividend payouts across firms, suggesting that companies in the sample tend to adopt stable dividend policies to maintain investor confidence. The liquidity indicators Current Ratio (CR) and Cash Ratio (CHR) shed light on the firms' ability to meet short-term obligations. With a mean of 1.1786, the CR suggests that, on average, firms have slightly more than enough current assets to cover their short-term liabilities, though the variation across firms indicates differing liquidity management practices. The CHR, with a lower mean of 0.2771, implies that firms generally hold minimal cash levels to meet immediate obligations, potentially to reduce opportunity costs associated with holding idle cash.

Short-Term Debt (SD) and Long-Term Debt (LD) ratios reflect the firms' leverage structures. The mean SD of 0.2487 indicates moderate reliance on short-term debt, possibly due to its lower cost and easier access. Conversely, the mean LD of 0.0543 shows a low level of long-term debt, suggesting that many firms in the sample are cautious about taking on long-term liabilities that might impose restrictions or additional risks.

Firm Size (SIZ) and Firm Age (AGE) exhibit considerable variation, with large standard deviations, indicating a diverse sample that includes both large, established firms and smaller, newer ones. This diversity in size and age likely impacts dividend policies, as larger and older firms often have more stable cash flows, which may enable them to pay higher dividends.

Variance Inflation Factor (VIF)
Table 2 presents the Variance Inflation Factor (VIF) matrix, generated using Smart-PLS, to assess multicollinearity among independent variables in the regression model. VIF values help identify cases where independent variables are highly correlated, which can inflate the variances of regression coefficients. This inflation makes the estimates less stable and harder to interpret, complicating the analysis of relationships within the model.

Table 2
VIF

Variable	DP
CR	1.398
CHR	1.598
SD	1.305
LD	1.177
SIZ	1.239
AGE	1.188

Note: This table provides (VIF) for the study variables CR denotes Current ratio. CHR denotes Cash ratio. SD denotes Short term debt. LD denotes Long term debt. SIZ denotes the firm size. AGE denotes the firm age.

Table 2 provides the Variance Inflation Factor (VIF) values for each independent variable in the study, assessing potential multicollinearity in the regression model. Current Ratio (CR) displays a VIF of 1.398, indicating low multicollinearity, meaning it has limited overlap with other variables in explaining variance. Cash Ratio (CHR) has a slightly higher VIF of 1.598 but remains well within acceptable limits, showing minimal correlation with other predictors. Short-Term Debt (SD) and Long-Term Debt (LD), with VIF values of 1.305 and 1.177 respectively, exhibit low multicollinearity, allowing for clear interpretation of their individual effects on the model. Firm Size (SIZ) and Firm Age (AGE) have VIF values of 1.239 and 1.188, respectively, also falling below the threshold of concern.

As all VIF values are well under the commonly accepted cutoff of 5(Hair et al., 2010). Multicollinearity does not pose a significant issue in this model. This ensures that each independent variable contributes uniquely to explaining variance in the dependent variable, Dividend Policy (DP), leading to stable regression coefficients and interpretable results.

Explanatory Power
Table 3
Explanatory Power

Predicator(s)	Outcome(s)	R-Square	F-Square	Q- Square
CR	DP	0.214	0.022	0.193
CHR			0.022	
SD			0.001	
LD			0.010	
SIZ			0.022	
AGE			0.037	

Note: This table explanatory power for the study variables DP denotes Dividend policy .CR denotes Current ratio. CHR denotes Cash ratio. SD denotes Short term debt. LD denotes Long term debt. SIZ denotes the firm size. AGE denotes the firm age.

Table 3 presents the explanatory power of the model, illustrating how well the predictor variables account for variance in Dividend Policy (DP). The R-Square value of 0.214 indicates that 21.4% of the variance in Dividend Policy is explained by the model's predictors, demonstrating moderate explanatory power. According to Cohen (1988), R-Square values can be categorized as substantial (0.26), moderate (0.13), or weak (0.02), placing this result in the

moderate range. This suggests that, while the predictors contribute to explaining dividend policy, additional factors outside the model may influence dividend decisions (Rigdon, 2012).

The F-Square values assess the effect size of each predictor on Dividend Policy, with Current Ratio (CR) and Cash Ratio (CHR) both showing an F-Square of 0.022, indicating small but meaningful effects. Similarly, Long-Term Debt (LD) and Firm Size (SIZ) show minor effect sizes with F-Squares of 0.010 and 0.022, respectively. According to Cohen (1988), F-Square values are categorized as large (0.35), medium (0.15), and small (0.02), aligning these results with the "small" category. Short-Term Debt (SD), with an F-Square of 0.001, and Firm Age (AGE), with an F-Square of 0.037, also exhibit small effect sizes, implying limited individual influence on Dividend Policy.

The Q-Square value of 0.193 confirms the model's predictive relevance, as values greater than zero indicate sufficient predictive power (Hair et al., 2013). This moderate Q-Square suggests that the predictors contribute to predicting Dividend Policy, though improvements could be made by incorporating additional factors that may enhance both the explanatory and predictive power of the model.

Hypothesis Test

In the structural model, path coefficients represent the hypothesized links between constructs, showing the direct effects of the independent variables on the dependent variable (Ramaya et al., 2018). This study uses partial least squares structural equation modeling (PLS-SEM) to estimate these coefficients, and analyze the relationships between liquidity, leverage, and dividend policy. The significance of each relationship is assessed by performing a PLS refactoring procedure, which produces t-values. For one-tailed tests, critical t-values are set at 1.645 for 95% confidence and 2.33 for 99% confidence. A t-value that exceeds these thresholds indicates a statistically significant path coefficient. Figures 3 and 4 present PLS Structure Model for Path Coefficient and R2, and PLS Structure Model for T-Value, respectively.

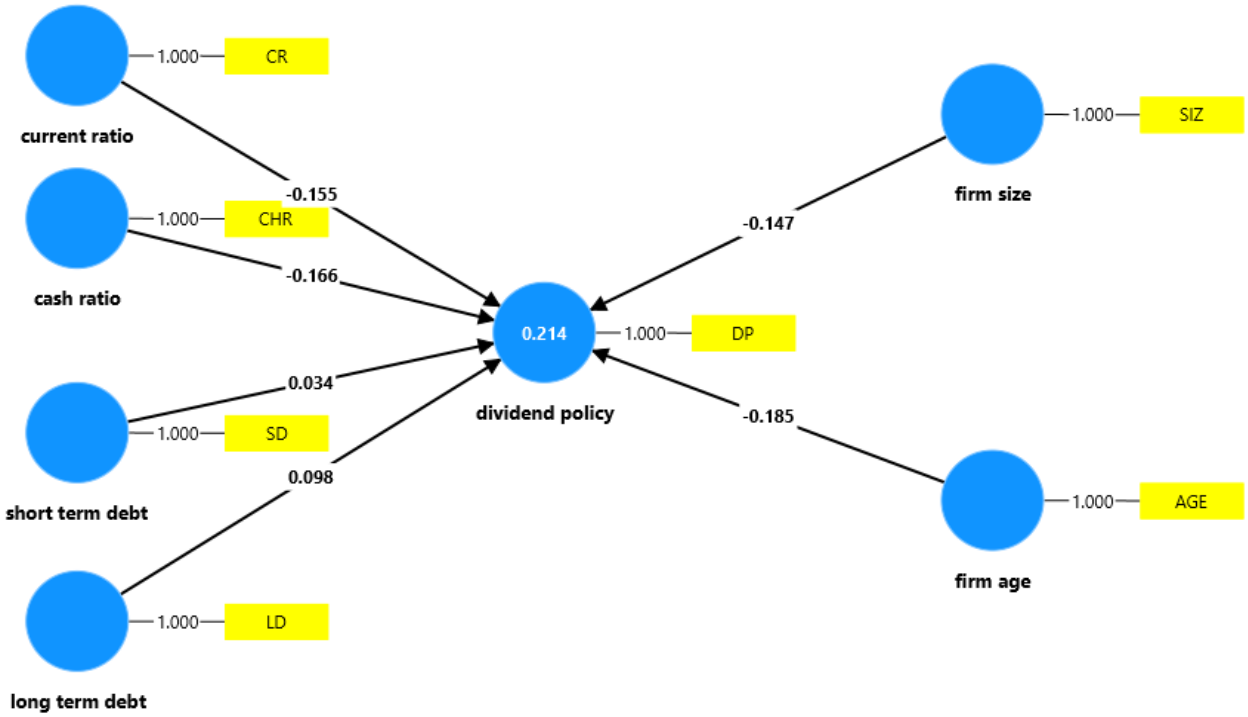

Figure 3. PLS Structure Model for Path Coefficient and R2

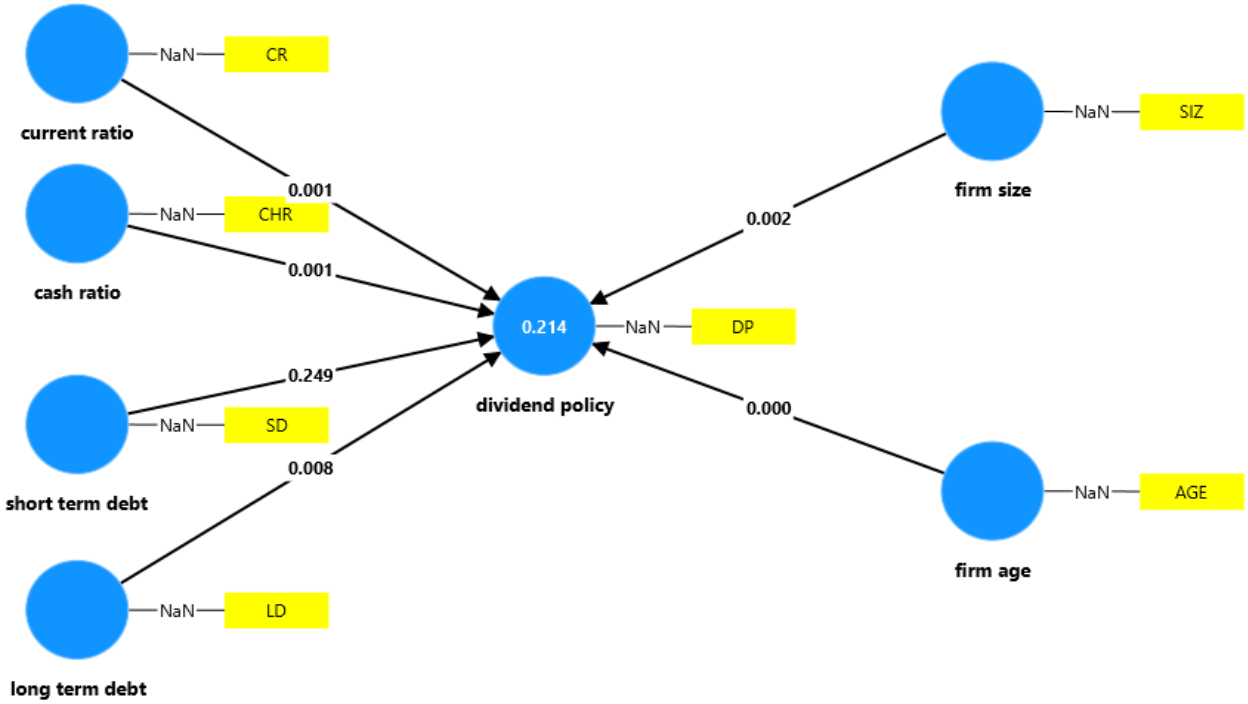

Figure 4. PLS Structure Model for T-Value

Table 4
Path Coefficient and T-Value For Direct Relationship

		path	Path Coefficient	Standard Error	t-value (1 tailed)	Decision
H1	H1a	CR -> DP	-0.155	0.052	2.982**	Supported
	H2b	CHR-> DP	-0.166	0.052	3.174**	Supported
H2	H2a	SD -> DP	0.034	0.050	0.678	Not Supported
	H2b	LD -> DP	0.098	0.041	2.389**	Supported
Controls Variables		SIZ -> DP	-0.147	0.050	2.924**	Effect
		AGE -> DP	-0.185	0.051	3.663**	Effect

** p < 0.01, *p < 0.05 Note: This table show Path Coefficient and t-value for direct relationship for the study variables DP denotes Dividend policy .CR denotes Current ratio. CHR denotes Cash ratio. SD denotes Short term debt. LD denotes Long term debt. SIZ denotes the firm size. AGE denotes the firm age.

Table 4 provides the path coefficients, standard errors, and t-values for the direct relationships analyzed in this study. Each hypothesis is evaluated based on the significance levels of these values, and the results are interpreted within the framework of the pecking order, agency cost theories, and previous literature, which support the observed relationships between liquidity, leverage, and dividend policy.

The results for H1 reveal a negative relationship between liquidity (measured by Current Ratio and Cash Ratio) and Dividend Policy. Specifically, the path coefficient for the relationship between Current Ratio (CR) and Dividend Policy (DP) is -0.155, with a t-value of 2.982, which is statistically significant at the 1% level. Similarly, the Cash Ratio (CHR) shows a path coefficient of -0.166 with a t-value of 3.174, also significant at the 1% level. These results support H1a and H1b, indicating that higher liquidity levels are associated with lower dividend payouts. According to the pecking order and agency cost theories, companies prefer to retain internal funds to reduce reliance on external financing and minimize agency costs. By doing so, managers maintain greater control over cash flows, reducing dividends to preserve liquidity for reinvestment or operational flexibility. This supports a negative relationship between liquidity and dividend policy, as excess liquidity is kept within the firm rather than distributed to shareholders. Empirical studies support the results of this study, such as: Abdel Maqsoud (2021), and Damayanti and Sucipto (2022), they pointed out that the liquidity has a negative impact on the dividend policy due to the scarcity of financial resources and the high cost of borrowing, and that companies prefer internal financing for investment operations.

For H2, the results indicate a positive relationship between leverage (measured by Short-Term Debt and Long-Term Debt) and Dividend Policy. While the path coefficient for Short-Term Debt (SD) is 0.034 with a t-value of 0.678, which is not statistically significant. Empirical studies support the results of this study, such as: Sarrah & Nour-Eddine (2021), and Chukwuebuka, & Okonkwo (2020). Their findings indicate that firms with higher levels of short-term debt do not necessarily reduce their dividend payments, suggesting that the management of short-term obligations is not a primary determinant in setting dividend policy. The Long-Term Debt (LD) shows a significant positive effect on Dividend Policy, with a

path coefficient of 0.098 and a t-value of 2.389 at the 1% significance level. This supports H2b, suggesting that companies with higher levels of long-term debt are more likely to pay dividends. Both pecking order and agency cost theories offer insight here; firms with higher leverage may distribute dividends to signal financial health and discipline to creditors, ensuring that excess funds are returned to shareholders rather than retained for managerial discretion. This approach reduces agency costs by limiting managerial control over cash reserves, thereby aligning with shareholder interests and supporting a positive relationship between leverage and dividend policy. Empirical studies support the results of this study, such as: Okoye et al (2016), and Sarrah & Nour-Eddine (2021) .They pointed out that long-term debt has the ability to support investments, as long-term debt is characterized by the flexibility of successful investment that generates revenues, which is reflected in the payment of dividends to investors.

The control variables, Firm Size (SIZ) and Firm Age (AGE), also show significant effects on Dividend Policy. Firm Size has a path coefficient of -0.147 with a t-value of 2.924. Empirical studies support the results of this study, such as: Tahir & Mushta (2016), and Pattiruhu & Paais (2020). They pointed out that the size of the company has an important impact on determining dividend distribution policies. while Firm Age has a path coefficient of -0.185 with a t-value of 3.663, both significant at the 1% level. Empirical studies support the results of this study, such as: Tamimi & Takhtaei (2014) and Benjamin & Tenai, J. (2018). They pointed out that the age of the company plays a major role in dividend distribution decisions, as emerging companies have different policies than older companies. The negative coefficients for both variables indicate that larger and more established firms tend to distribute lower dividends, possibly due to their greater focus on retaining earnings for growth and operational stability.

Overall, these results specifically reflect the dynamics within Jordanian service firms, offering insights into how liquidity and leverage influence dividend policy in this sector. The findings show that higher liquidity levels, measured through current and cash ratios, are associated with lower dividend payouts, suggesting that Jordanian service firms prefer to retain cash internally to minimize reliance on external funding. This aligns with the pecking order and agency cost theories, as firms with more liquidity may prioritize reinvestment over distributing cash to shareholders to maintain financial flexibility and reduce agency costs.

In contrast, higher leverage, particularly long-term debt, positively impacts dividend policy, with leveraged firms in the Jordanian service sector showing a greater likelihood of paying dividends. This can be interpreted through the lens of pecking order and agency cost theories, as firms may distribute dividends to reassure creditors and mitigate potential agency conflicts by limiting cash under managerial control. This positive relationship between leverage and dividend payments suggests that Jordanian service firms use dividend policy strategically to signal financial health and align managerial actions with shareholder and creditor interests.

Conclusion, Recommendation, and Limitations

This study analyzed the influence of liquidity and leverage on dividend policy in the Jordanian service sector, using data from 38 publicly listed firms over an eleven-year period (2011-2021). Employing Partial Least Squares Structural Equation Modeling (PLS-SEM), the research revealed significant relationships between liquidity, leverage, and dividend policy, while also examining the roles of firm size and age as control variables. The findings indicate a negative

relationship between liquidity (measured through current and cash ratios) and dividend policy, suggesting that firms with higher liquidity levels prefer to retain cash internally rather than distribute it to shareholders. This supports the pecking order and agency cost theories, as companies may prioritize internal funds for future investments and operational stability, thereby reducing reliance on external financing and minimizing agency costs.

Conversely, the study found a positive relationship between leverage, particularly long-term debt, and dividend policy, indicating that firms with higher leverage are more likely to distribute dividends. This behavior aligns with agency cost theory, which suggests that firms use dividend payments as a tool to reassure creditors and signal financial health. By distributing excess cash to shareholders, these firms limit managerial discretion over liquidity, helping to reduce potential conflicts of interest and maintain alignment with shareholder and creditor expectations. Additionally, the control variables firm size and age were found to influence dividend policy significantly. Larger and more established firms displayed a tendency toward lower dividend payouts, likely due to their focus on retaining earnings for long-term growth and reinvestment, as well as their financial stability.

Based on these insights, several recommendations emerge. First, managers in the Jordanian service sector should carefully consider liquidity levels when formulating dividend policies, particularly to balance the need for operational flexibility with shareholder expectations. Excessive liquidity may attract agency costs, so regular dividend payments could be used to mitigate these costs by reducing cash available for discretionary spending. Second, firms with substantial leverage should maintain a consistent dividend policy as a positive signal to the market, enhancing investor and creditor confidence. By adopting an optimal balance between liquidity retention and dividend distribution, firms can manage agency costs effectively and support sustainable growth. Lastly, policymakers could consider developing guidelines for dividend distribution within the sector to enhance transparency and investor protection, fostering a more stable financial environment for service companies.

Despite its contributions, this study has several limitations. First, it focuses solely on the Jordanian service sector, which may limit the generalizability of the findings to other sectors or regions. The unique economic and regulatory environment in Jordan could influence dividend policies differently than in other countries. Second, the study relies on secondary data from annual reports and the Amman Stock Exchange, which may introduce data limitations or omissions in firm disclosures. Additionally, this research only considers liquidity and leverage as primary predictors of dividend policy, potentially overlooking other relevant factors, such as market volatility, investor sentiment, and broader economic conditions. Future studies could address these limitations by including additional sectors, exploring different economic environments, and incorporating a broader range of variables to provide a more comprehensive understanding of the determinants of dividend policy in emerging markets.

References

Abbas, A., Hadi, A & Muhammad, A. (2021). Measuring the Extent of Liquidity's Impact on the Financial Structure. International Journal of Multicultural and Multireligious Understanding. 8(6), 365-389.

Maqsoud. (2021). Accounting Disclosure for Financial Instruments: Financial Leverage Risk and Liquidity and their impact on Earnings per Share and Dividends Yield. Accounting and Auditing Journal of the Association of Arab Universities, 10(2), 1-35.

Abdullah, H. (2021). Profitability and leverage as determinants of dividend policy: Evidence of Turkish financial firms. Eurasian Journal of Management & Social Sciences, 2(3).

Abu Shaban, W. (2017). The Impact of Liquidity and Investment Opportunities on Financial Structure: An Empirical Study of The Manufacturing Companies Listed in Palestine Stock Exchange, Master Thesis / The Islamic University–Gaza.

Adedeji, T. A. (1998). Does the Pecking Order Hypothesis explain the Dividend Payout Ratios of firms in the UK? Journal of Business Finance and Accounting, Vol.25, No. 9, pp. 1127-1153.

Allen, M., & Bolton, P. (2004). Liquidity and financial instability: An introduction. Journal of the European Economic Association, 2(6), 925-928.

Al-Najjar, B. (2009), "Dividend behaviour and smoothing: evidence from Jordanian panel data", Studies in Economics and Finance, Vol. 26 No. 3, pp. 182-197.

Al-Najjar, B., & Kilincarslan, E. (2019). The determinants of leverage in developing countries. Research in International Business and Finance, 48, 169-178.

Amman Chamber of Commerce. (2019), Statistical report published on Jordanian commercial companies.

Amman Stock Exchange. (2022). Cumulative data report. ASE publishing report of Cumulative Data and Management Sciences, 3(1), 13-21.

Bataineh, H. (2021). The impact of ownership structure on dividend policy of listed firms in Jordan. Cogent Business & Management, 8(1), 1863175.

Batchimeg, B. (2017). Financial performance determinants of organizations: The case of Mongolian companies. Journal of competitiveness, 9(3), 22-33.

Benjamin, O. M., & Tenai, J. (2018). Effect of age diversity on dividend policy in Kenya. International Journal of Advances in Management, Economics and Enterprenuership, 5(8), 1-6.

Berger, A., & Bonaccorsi, E. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. Journal of Banking & Finance, 30(4), 1065-1102.

Brigham, E. F., & Houston, F. J. (2016). Fundamentals of Financial Management (14th ed.). International, Singapore: Cengage Leraning.

Brounen, D., DeJong, A & Koedijk, K. (2006). Capital structure policies in Europe: Survey evidence. Journal of Banking & Finance, 30(5), 1409-1442.

Bustani, B. (2020). The Effect Of Return On Assets (ROA), Net Profit Margin (NPM), Dividend Payout Ratio (DPR) And Dividend Yield (DY) On Stock Prices In The Subsectors Insurance Company Listed In Indonesia Stock Exchange Period 2015-2018. Ilomata International Journal of Tax and Accounting, 1(3), 170-178.

Central Bank of Jordan (2022) Annual Report - Annual Report - Central Bank statements on the state of interest rates.

Central Bank of Jordan. (2022). Interest rate policy and the Jordanian dinar stability. [Website or report if available].

Chukwuebuka, O., & Okonkwo, O. (2020). Financial leverage and dividend policy: Evidence from oil and gas firms in Nigeria. Asian Journal of Economics, Business and Accounting, 14(2), 51-62.

Coad, A., Segarra-Blascoand, A., & Teruel, M. (2013). 'Like milk or wine: does firm performanceimprove with age?', Structural Change and Economic Dynamics, vol. 24, 173-189.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Mahwah, NJ: Lawrence Erlbaum

Dahiyat, A., Weshah, S., & Aldahiyat, M. (2021). Liquidity and Solvency Management and its Impact on Financial Performance: Empirical Evidence from Jordan. Journal of Asian Finance, Economics and Business, 8(5), 135–141.

Dakua, S. (2019). Effect of determinants on financial leverage in I ndian steel industry: A study on capital structure. International Journal of Finance & Economics, 24(1), 427-436.

Damayanti, R., & Sucipto, A. (2022). The Effect of Profitability, Liquidity, and Leverage on Firm Value With Dividend Policy as Intervening Variable (Case Study on Finance Sector In Indonesian Stock Exchange 2016-2020 Period). International Journal of Economics, Business and Accounting Research (IJEBAR), 6(2), 1214-1223.

Development and Reconstruction of the European Bank (DRBE). (2020). Financial challenges of Jordanian companies. [Report].

DRBE. (2020) Development and Reconstruction for Bank European report on the state of the economic conditions of developing countries.

Drempetic, S., Klein, C., & Zwergel, B. (2020). The influence of firm size on the ESG score: Corporate sustainability ratings under review. Journal of business ethics, 167, 333-360.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis: Global edition.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long range planning, 46(1-2), 1-12.

Hoang, L. X., Dang, D. Q., & Tran, T. D. (2020). The Role of Overconfident CEO to Dividend Policy in Industrial Enterprises .Journal of Asian Finance, Economics and Business, 7(7),361-367.

Hongli, J., Ajorsu, E., & Bakpa, E. (2019). The Effect of Liquidity and Financial Leverage on Firm Performance: Evidence from Listed Manufacturing Firms on the Ghana Stock Exchange. Research Journal of Finance and Accounting, 10(8), 91-100.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3(4), 305-360.

Jordan Securities Depository Center (2022) Annual report - the state of the Jordanian sectors - registered companies.

Jordanian Ministry of Investment. (2022). Industry and Service Sectors in Jordan. Publications of the Jordanian Ministry of Investment.

Kanakriyah, R. (2020). Dividend policy and companies' financial performance. The Journal of Asian Finance, Economics and Business (JAFEB), 7(10), 531-541.

Kanwal, M., & Hameed, S. (2017). The relationship between dividend payout and firm financial performance.Research in Business and Management, 4(1), 5-13. https://doi.org/10.5296/rbm.v4i1.10784

Kim, J., Yang, I., Yang, T., & Koveos, P. (2021). The impact of R&D intensity, financial constraints, and dividend payout policy on firm value. Finance Research Letters, 40,

101802.

Kim, W., & Sorensen, E. (1986). Evidence on the Impact of the Agency Costs of Debt on Corporate Debt Policy. Journal of Financial and Quantitative Analysis, 21(2), 131-144.

Kimutai, P. K. (2012). The effect of liquidity on dividend payout by companies listed at the Nairobi Securities Exchange (Doctoral dissertation).

Lim, K. (2016). The shift of a dividend policy and a leverage policy during the 2008 financial crisis. International Journal of Finance & Banking Studies (2147-4486), 5(6), 09-14.

Mahmood, F., Han, D., Ali, N., Mubeen, R., & Shahzad, U. (2019). Moderating effects of firm size and leverage on the working capital finance–profitability relationship: evidence from China. Sustainability, 11(7), 2029.

Maisharoh, T., & Riyanto, S. (2020). Financial Statements Analysis in Measuring Financial Performance of the PT. Mayora Indah Tbk, Period 2014-2018. Journal of Contemporary Information Technology, Management, and Accounting, 1(2), 63-71.

Marito, B. C., & Sjarif, A. D. (2020). The impact of current ratio, debt to equity ratio, return on assets, dividend yield, and market capitalization on stock return (Evidence from listed manufacturing companies in Indonesia Stock Exchange). Economics, 7(1), 10-16.

Myers, M., & Bacon, F. (2004). The determinants of corporate dividend policy. Academy of Accounting and Financial Studies Journal, 8(3), 17.

Myers, S. (1977). Determinants of Corporate Borrowing, Journal of Financial Economics, vol 5. OHADA Official journal number 10- 4th year. 37 – 41.

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.

Nissim, D. & Penman, S.H. (2003). Financial statement analysis of leverage and how it informs about profitability and price-to-book ratios. Review of Accounting Studies, Vol. 8 No. 4, 531-560.

Nurchaqiqi, R., & Suryarini, T. (2018). The effect of leverage and liquidity on cash dividend policy with profitability as moderator moderating. Accounting Analysis Journal, 7(1), 10-16.

Nurwani, N., & Syafina, L. (2022). Sales, Short-Term Debt, Long-Term Debt, and Net Profit: A Study of Companies in Jakarta Islamic Index (JII). Media Trend, 17(1), 1-7.

Okoye, E. I., Amahalu, N., Nweze, C., & Chinyere, O. (2016). Effect of financial leverage on dividend policy of quoted conglomerates (2010-2015).

Opler, T., Pinkowitz, L., Stulz, R., and R. Williamson, 1999. The Determinants and Implications of Corporate Cash Holdings. Journal of Financial Economics 52, 3-46.

Pattiruhu, J. R., & Paais, M. (2020). Effect of liquidity, profitability, leverage, and firm size on dividend policy. The Journal of Asian Finance, Economics and Business, 7(10), 35-42.

Rahman, F. (2022). Impact of WACC on Firm Profitability: Evidence from Food and Allied Industry of Bangladesh. arXiv preprint arXiv:2210.07955.

Ramayah, T. J. F. H., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). Partial least squares structural equation modeling (PLS-SEM) using smartPLS 3.0. An updated guide and practical guide to statistical analysis, 967-978.

Rigdon, E. E. (2012). Rethinking partial least squares path modeling: In praise of simple methods. Long range planning, 45(5-6), 341-358.

Santosa, P. W., Tambunan, M E. and Kumullah, E. R. (2020). The role of moderating audit quality relationshipbetween corporate characteristics and financial distress in the Indonesian mining sector. Investment Management and Financial Innovations, 17(2),

88-100. doi:10.21511/imfi.17(2).2020.08

Sari, D. P., Nabella, S. D., & Fadlilah, A. H. (2022). The Effect of Profitability, Liquidity, Leverage, and Activity Ratios on Dividend Policy in Manufacturing Companies in the Food and Beverage Industry Sector Listed on the Indonesia Stock Exchange in the 2016-2020 Period. Jurnal Mantik, 6(2), 1365-1375.

Sarrah, M., & Nour-Eddine, M. (2021). The effect of financing behavior on the dividend policy of economic institutions listed in the Dow Jones Industrial Index (DJIA). Journal of Human Sciences of Oum El Bouaghi University, 8(2), 905-925.

Solomon. E., (1963). The Theory of Financial Management, New York Columbia University Press.401- 409.

Stulz, R. (1988). Managerial control of voting rights: Financing policies and the market for corporate control. Journal of Financial Economics, 20, 25-54.

Tahir, M., & Mushtaq, M. (2016). Determinants of Dividend Payout: Evidence from listed Oil and Gas Companies of Pakistan. Journal of Asian Finance, Economics and Business,

Tamimi, M., & Takhtaei, N. (2014). Relationship between firm age and financial leverage with dividend policy. Asian Journal of Finance & Accounting, 6(2), 53.

Xie, X., Hoang, T. T., & Zhu, Q. (2022). Green process innovation and financial performance: The role of green social capital and customers' tacit green needs. Journal of Innovation & Knowledge, 7(1), 100165

Yegon, C., Cheruiyot, J., Sang, J., Cheruiyot, P. K., Kirui, J., & Rotich, J. (2014). Effects of dividend policy on firm's financial performance: Econometric analysis of listed manufacturing firms in Kenya. Research Journal of Finance and Accounting, 5(12), 136-144.