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Ownership Structure and Cash Holdings: Empirical Evidence from Saudi Arabia

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Abstract

This paper examines the relationship between ownership structure and level cash holdings in an emerging country, namely, Saudi Arabia, by constructing a corporate governance mechanism (foreign ownership, family ownership, institutional and managerial ownership). This paper uses data from 100 listed firms at Saudi Stock Exchange (TADAWUL) from 2011 to 2019. The firm's decision to hold cash has come to the fore in the last two or three years as a result of the recent global financial crisis, and the impact that this has had on the firms' ability to raise funds from external sources. Using the random-effect generalized least square (GLS) regression model, the findings reveal that foreign and family ownership negatively influences cash holdings, while managerial ownership has a positive association with cash holdings. Further, institutional ownership did not have a direct effect on cash holdings in Saudi Arabia. Our results suggest that ownership structure include foreign ownership, family and managerial ownership is an essential vehicle to promote the performance of cash holding of all the 100 public-listed non-financial firms in Saudi Arabia. We recommend that sound policies should be targeted toward foreign ownership, family, and managerial ownership since they are essential to improve cash holding in Saudi Arabian firms.

Keywords: Ownership Structure, Agency, Cash Holdings

JEL Classification Code: G3, G32, G11

1. Introduction

The agency problem is a conflict of interest inherent in any relationship where one party is expected to act in another's best interests. In corporate finance, the agency problem usually refers to a conflict of interest between a company's management and the company's stockholders. Agency costs that arise because of conflicts between the two self-interested parties consist of monitoring the behavior of managers. The evidence from Nikolov and Whited (2014) explained that corporate governance is economically important in influencing cash holdings. Cash holdings available to firms is a significant force in the relationship between shareholders and managers as asserted by Jensen (1986) in his free cash flow hypothesis, whereby entrenched managers are hesitant to distribute excess cash to shareholders. However, without a proper governance mechanism in place, it is not possible to avoid self-interested managers investing in low-return projects at the expense of distributing cash reserves to shareholders. This further denotes the significance of governance in controlling the spending of cash reserves by managers and provides a motivation to study how corporate governance affects the tendency of cash reserves. Salehi et al. (2020) found that companies are able to reduce the cost of equity by establishing strong corporate governance.

Harford et al. (2008) argued that the weaker governance structure of firms appeared to be the main cause of excessive cash spending in contrast to the precautionary motive of cash holdings. Masood and Shah (2014) emphasized the role of good corporate governance to maintain high cash levels. Corporate governance in simple words can be defined as the system through which businesses are directed and controlled. Corporate governance mechanisms have become one of the hot issues discussed in the world economies

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(Abed et al., 2012; Al-Najjar, 2010). Al-Najjar and Clark (2017) stated that emerging markets are lacking in terms of the compliance of corporate governance rules in comparison to the international standards. This lacking could be removed by adopting good governance practices in terms of activating regulations and improving shareholder rights that govern overall firms' performance. Notably, corporate governance mainly copes with the agency problem which arises as a result of the conflict between shareholders and managers. Dang et al. (2020) suggested that companies need to strictly comply and implement corporate governance to bring down the agency cost and consequently to increase performance. Weak corporate governance practices can enforce managers to adopt self-interest behavior and spend excessive cash by investing in projects with lower returns (Ammann et al., 2010). However, Jantadej & Wattanatorn (2020), argued that corporate governance plays a crucial role in protecting shareholder wealth and reduces asymmetric information between corporate and external investors including debt holders leading to a decrease in the cost of debt financing.

Hingorani et al. (1997) concluded that foreign ownership could use its control to mitigate agency problems by aligning the interests of managers and other shareholders. Guedhami et al. (2009) showed that foreigners prefer transparent companies, as it could reduce information asymmetry and the impulse for expropriation. Further, Grinblatt and Keloharju (2001) stated that foreign investors are more experienced and efficient in evaluating companies. Ferreira and Matos (2008) found that foreign ownership plays a more efficient role on corporate governance level than domestic intuitional, leading to an enhanced firm performance which may influence corporate investment policy.

However, Patibandla (2006) argued that foreign investors face more agency costs than domestic institutional investors due to various legal environments. Merton (1987) suggests that investors have various amounts of information related to a company and they invest in a company that is already well-known to them. Therefore, foreign investors tend to invest in large companies as foreign fund managers are less informed about the domestic market compared to domestic investors (Covriget al., 2006). Vo (2018) examined the relationship between foreign ownership and corporate cash holdings using a sample of firms listed on the Ho Chi Minh City stock exchange covering the period 2007–2015. He employed different econometric techniques for panel data. The results showed that higher foreign ownership is associated with more corporate cash holdings. This finding suggests that foreign ownership in the Vietnam stock market is subject to precautionary motive and agency motive forcing firms to hold more cash. However, the outcome suggests potential agency problems because managers might subsequently use this cash reserve for their advantage. These problems are even more pronounced in emerging markets where investors' protection mechanism is weak. Mian and Nagata (2014), using a sample of 15031 Japanese observations from 2001 to 2012, found that foreign ownership is related to an increase in cash holdings. The authors argued that foreign ownership tends to invest in large and cash-rich firms more than small and low-cash firms. In line with this, Ku et al. (2013) also found that foreign ownership affects cash holdings positively.

Hou and Liu (2020) investigated the relationship between foreign residency rights and corporate cash holdings. The results showed that privately-owned enterprises whose controlling persons have foreign residency rights are holding more cash. In emerging economies, Loncan (2018) examined the relationship between foreign ownership and cash holdings. The results showed a statistically significant negative relationship between foreign ownership and cash holdings. Mugableh (2021) examined the determinants of corporate cash holdings using a sample of manufacturing and services corporations listed on the Amman Stock Exchange over the period 2009–2020. He employed the fixed effects regression analysis. The results showed that there is a statistically significant negative effect of foreign ownership on corporate cash holdings. . However, Al-Najjar and BinSaddig (2013) and Afifa et al. (2021) found that cash holdings are not related to foreign ownership.

Agency theory may develop the positive association between the firms' family ownership structure and cash holdings since Jensen and Meckling (1976) argued that families have the incentive to hold a large amount of cash in their firms and to take up senior management positions. The expected benefit of managers who has a large ownership stake is that it provides them with strong enough financial incentives for the improvement of firm value. On the other hand, Kuan et al. (2011) stated that family-controlled firms can implement policies that satisfy the family's personal benefits instead of focusing on the shareholders' interests (Lins et al., 2013). This might increase the agency problem between majority and minority shareholders (Chrisman et al., 2007). Accordingly, they found that agency cost is high in family-controlled firms, due to the high partition of the control rights and cash flow rights which leads to more expropriation on the wealth of the minority shareholders. Thus, family-controlled firms are holding more cash reserves as compared to non-family-controlled firms.

Lozano and Duran (2017) found that in 16 Western European countries, family-owned firms have a higher target level of cash holdings to which they attempt to converge. In addition, the speed of adjustment is faster relative to non-family-owned firms. Family-owned firms are thus capable of achieving an optimal cash holding more efficiently than non-family-owned firms, and family-owned firms adjust their cash holdings more aggressively than non-family-owned firms.

Ozkan and Ozkan (2004) found that family ownership significantly and positively influences cash holdings, whereby firms tend to hold excess cash in their control to serve their interests. In addition, Kusnadi (2011), Liu et al. (2015), Khalil and Ali (2015) also found a positive association between family ownership and cash holdings. Their results suggest that family ownership could monitor the firm's cash holding effectively, thus reducing agency problems.

On the other hand, Fama and Jensen (1983) reported that family ownership could reduce the agency problem between managers and shareholders. In Taiwanese Chen and Wang (2014) use a sample of 22567 listed Taiwanese firms during 1990–2011, and found evidence of a strong negative relationship between family ownership and the level of cash holdings. Their result suggested that family ownership could monitor the firms' cash holding effectively, thus reducing agency problems. In the same result, Liu et al. (2015) found that family ownership structure and firms' cash holdings are significantly and negatively correlated implying that family-owned firms spend excessive cash.

Al-Najjar (2010) argued that institutional investors exert a greater influence on corporate governance and are important performers in most financial markets due to their influence and the policy of privatization being pursued by several countries. Lang and McNichols (1997) reported that institutional investors consist of pension funds, trust institutions, insurance companies, financial and investment companies. Ozkan and Ozkan (2004) argued that although large shareholders have a greater role in monitoring services, these shareholders do not share their "private benefits" of control with other shareholders. Thus, it might lead to a conflict of interest between the large and other shareholders. Harford et al. (2008) found that institutional investors affect cash holdings significantly and positively.

Brown et al. (2012) divided institutional investors into two types, short-term institutions (i.e., institutions that trade frequently for short-term trading profits) and long-term institutions (i.e., institutions that trade infrequently). The authors hypothesized that if institutional investor helps to reduce agency problem then the relationship between institutional investors and cash holdings might be negative, while under weak corporate governance, institutional investors could use their monitoring to pursue their own benefits.

The relationship between institutional ownership and cash holding is mixed. Al-Najjar and Clark (2017) investigated the impact of institutional investors on MENA firms' cash holdings. The study found that institutional ownership significantly and positively influences the cash holdings, implying that these shareholders are intended to increase their private benefits and hold high cash. Karpavicius and Yu (2011) examined the relationship between institutional ownership and cash holdings by using three-stage least square in US firms. The authors found that high institutional ownership leads to greater cash holdings suggesting that excess cash reduces the bankruptcy risks and increases firm value. In the same line, Brown et al. (2012) found that short-term institutional investors affect cash holdings positively while long-term institutional investors affect cash holdings negatively.

According to Agency theory, Jensen and Meckling, (1976) stated that shareholdings run by managers assist to bring coordination between managers' interests and that of shareholders. Teshima, (2008) argued that the incentive alignment effect is predicted to be more active as managerial ownership increases, indicating that as managerial ownership increases, the corporate performance also increases, and opportunistic managerial attitude decreases. Jensen (1986) reported that managers tend to hold large cash reserves to fulfill their own interests which might be at odds with other shareholders.

Ozkan and Ozkan (2004) found that lower managerial ownership could be helpful in the alignment of benefits between shareholders and managers. They termed this alignment of interests as the alignment effect. Thus, under the alignment effect, cash holding is negatively related to managerial ownership. However, with an increase in the stake of the managers in the company, managers may choose to hold excess cash to fulfill their own interests (Elyasiani & Zhang, 2015).

Kalcheva and Lins (2007) and Mohd et al. (2015) found a positive relationship between managerial entrenchment and cash holding levels. If country-level shareholder protection is poor, the positive relationship between managerial entrenchment and cash holding level is more pronounced. However, Nikolov and Whited (2014) employed the structural estimation of a dynamic model to investigate the influence of managerial perquisite consumption, managerial ownership, and compensation on cash holdings. They found that low managerial ownership contributes to the upward trend in the cash holdings of US firms. In contrast, Opler et al. (1999), Kusnadi (2011), and Basheer (2014) reported a non-linear relationship between managerial ownership and a firm's cash holdings.

2. Hypotheses Development

Foreign shareholders play a key part in the ownership structure of firms particularly in developing countries (Douma et al. 2006). According to Jiang and Kim (2004), foreign shareholders decrease the information asymmetry and increases the reliability and credibility of financial reporting. Furthermore, Abor and Biekpe (2007) and Guo and Zhou (2015) argued that the presence of foreign ownership leads to lessening agency costs. Several empirical studies, for example, Mian and Nagata (2014), Ku et al.

(2013), and Vo (2018) found that foreign ownership affects cash holdings significantly and positively. However, Loncan (2018) found that foreign ownership affects cash holdings negatively. In contrast, Al-Najjar and BinSaddig (2013) and Afifa et al. (2021) reported a non-monotonic relationship between foreign ownership and cash holdings. Therefore, the first hypothesis is developed as follows:

H1: *There is a positive relationship between foreign ownership and cash holdings.*

Under agency theory, Ozkan and Ozkan, (2004) and Kusnadi (2011) argued that family-controlled firms tend to hold more cash to pursue their own benefits, and this would lead to a positive relationship between family ownership and cash holdings. Ozkan and Ozkan (2004) found that family ownership significantly and positively influences cash holdings, whereby firms tend to hold excess cash in their control to serve their interests. In the same line, Kusnadi (2011), Liu et al. (2015), Khalil and Ali (2015) found a positive association between family ownership and cash holdings. However, Anderson and Reeb (2003) reported that families could monitor their firms more effectively as they have a higher fraction of their wealth in their firms. Chen and Wang (2014) and Liu et al. (2015) found a negative relationship between family ownership and the level of cash holdings. Thus, the second hypothesis is developed as follows:

H2: *There is a negative relationship between family ownership and cash holdings.*

According to Farooqi et al. (2017), the presence of institutional owners supports the effective monitoring of corporate and enhances the value and performance of different firms. Chang et al. (2016) argued that by strengthening corporate governance, institutional investors play a strong role in monitoring and mitigating agency costs. According to Agency theory, Brown et al. (2012) postulated the negative relationship between institutional ownership and cash holdings. Brown et al. (2012) found that long-term institutional investors affect cash holdings negatively while short-term institutional investors affect cash holdings positively. Karpavicius and Yu (2012), Brown et al. (2012), Belghitar and Khan (2013), Al-Najjar and Clark (2017), and Jebran et al. (2020) found that institutional ownership affects cash holdings significantly and positively. However, Al-Najjar (2015) reported an insignificant relationship between institutional ownership and cash holdings of Jordanian firms. Therefore, the third hypothesis is developed as follows:

H3: *There is a positive relationship between institutional ownership and cash holdings.*

Under agency theory, Jensen, (1986) stated that managers gain personal benefits from holding a large amount of cash. Jensen and Meckling (1976) reported that managerial ownership decreases the benefits of value-reducing actions. Kalcheva and Lins (2007) and Mohd et al. (2015) reported a significant positive influence of managerial ownership on cash holdings. However, Nikolov and Whited (2014) reported a significant and negative relationship between managerial ownership and cash holdings. In contrast, Ozkan and Ozkan (2004) and Kusnadi (2011) showed an insignificant relationship between managerial ownership and cash holdings. Therefore, the fourth hypothesis is developed as follows:

H4: *There is a positive relationship between managerial ownership and cash holdings.*

3. Methodology

3.1. Population and Sampling

This study examines the relationship between corporate governance (foreign ownership, family ownership, institutional and managerial ownership) on cash holdings of companies listed on the Saudi Stock Exchange (TADAWUL) from 2011 to 2019. Since the financial sector follows different regulations, they have been excluded from the sample. The sample has been reduced further due to the lack of some companies' data.

Thus, the final sample comprises 100 firms listed on the Saudi Stock Market (Tadawul) over a seven-year period from 2011 to 2019, spread across 13 different sectors, and thus 900 firm-year observations for non-financial firms.

3.2. Model Specification

To investigate the influence of corporate governance on cash holdings, the following regression model is employed (Table 1).

$$\mathrm{CASH}_{it} = \beta_0 + \beta_1\mathrm{FOWN}_{it} + \beta_2\mathrm{FAWN}_{it} + \beta_3\mathrm{IOWN}_{it} + \beta_4\mathrm{MOWN}_{it} + \mathrm{PRO}_{it} + \varepsilon_{it}$$

4. Empirical Results

This study predicts a negative relationship between foreign ownership and level cash holdings (Table 2 and Table 3). Table 4 shows that foreign ownership has a significant and negative relationship with cash holdings (β = −0.0524, p = 0.000). This result is consistent with previous studies (Loncan 2020; Mugableh, 2021) who found that there is a negative and significant relationship between family ownership and cash holdings. Hence, hypothesis one (H1) is accepted.

Table 1: Measurement of Variables

Variables	Variable Name	Measurement
CASH	Cash Holdings	Cash and cash equivalent to net assets. Net Assets = total assets – cash and cash equivalent
FOWN	Foreign Ownership	The proportion of shares possessed by foreigners (non-Saudi Arabian) to gross company's shares numbers
FAWN	Family Ownership	Percentage of shares held by family divided by the gross number of a firms' shares
IOWN	Institutional Ownership	The percentage of shares owned by institutions
MOWN	Managerial Ownership	Percentage of shares held by the board disclosed in the annual financial report
PRO	Profitability	EBIT/Total assets

Table 2: Summary Statistics

Variables	Obs.	Minimum	Maximum	Mean	Std. Dev.	Prob.	Skewnes	Kurtos
CASH	900	0.0015	1.3165	0.0636	0.0861	0.0202	1.7130	5.0462
FOWN	900	0.0000	0.9872	0.1051	0.2179	0.0000	2.2900	7.4544
FAWN	900	0.0000	0.9561	0.1408	0.2199	0.0411	2.1233	7.0781
IOWN	900	0.0000	0.9991	0.3503	0.3131	0.3147	0.5380	2.0544
MOWN	900	0.0000	0.9545	0.1744	0.2214	0.0761	1.6024	5.0454
PRO	900	−0.476	0.6834	0.0299	0.1092	0.0350	−0.1636	9.6586

Table 3: Correlation Matrix Results

Variables	CASH	FOWN	FAWN	IOWN	MOWN	PRO
CASH	1					
FOWN	−0.1097	1				
FAWN	0.0262	−0.1379	1			
IOWN	−0.0254	0.3608	−0.3434	1		
MOWN	0.0594	−0.0777	0.7758	−0.5028	1	
PRO	−0.0407	−0.0343	−0.0343	0.0852	0.0726	1

Note: ***, ** and *Indicates significant at 1%, 5% and 10% level of significance based on *t*-statistics.

This study expected a negative relationship between family ownership and level cash holdings. As shown in Table 4, family ownership has a negative and significant relationship with cash holdings ($\beta = -0.0382704$, $p = 0.000$). This result suggests that family ownership contributes negatively to the level of cash holdings. This result is consistent with Chen and Wang (2014) and Liu et al. (2015) who found that cash holdings negatively influence family ownership. According to Chrisman et al. (2007) and Fama and Jensen (1983), family-controlled firms typically monitor and provide incentives to family managers, thus mitigating agency problems between managers and shareholders. Compared to non-family controlled firms, family members intend to have a strong commitment and hold substantial ownership in their firms. Thus, they have strong incentives to monitor the management to protect their interests instead of shareholders' interests (Anderson & Reeb, 2003), thus holding less cash (Chen & Wang, 2014). Hence, hypothesis second (H2) is accepted.

This study assumes that there is a positive relationship between institutional ownership and cash holdings. Table 4 shows that the direction of the relationship between institutional ownership and cash holdings is positive and insignificant ($\beta = 0.0104$, $p = 0.189$). The result is consistent with our expectation and empirical study by Ozkan and Ozkan (2004), Kusnadi (2011), and Al-Najjar (2015) who

Table 4: GLS Regression Results of CASH Model

Variables	Fixed-Effect		Round-Effect		GIS	
	Coefficient	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
FOWN	−0.1020367	0.000	−0.320303	0.000	−0.0524428	0.000
FAWN	−0.0159909	0.558	0.0041893	0.898	−0.0382704	0.000
IOWN	0.0180219	0.316	−0.0265815	0.386	0.0104658	0.189
MOWN	0.0011788	0.120	0.0332117	0.294	0.025686	0.073
PRO	0.0011788	0.968	0.237991	0.464	0.0108459	0.546
VIF	1.97					
F-stat	Prob-*f*	0.0000				
Hausman	χ^2	0.0000				
Homo	No Hetero					

found that there is a positive and insignificant relationship between institutional ownership and cash holdings. This result shows that in a country like Saudi Arabia, where corporate governance is weak, institutional investors are the reason for the firms to hold less cash. Hence, hypothesis third (H3) is not accepted.

Managerial ownership is expected to be positively associated with cash holding. Table 4, shows that there is a significant positive relationship between managerial ownership and cash holdings (β = 0.0256, p = 0.073). The result is in line with Kalcheva and Lins (2007) and Mohd et al. (2015) who found that managerial ownership was significantly related to cash holdings. According to Jensen and Meckling (1976), a high level of managerial ownership may motivate managers to act in the best interest of shareholders and may serve as a positive monitoring substitute to reduce agency conflicts. Managerial ownership helps to resolve the agency conflicts between external stockholders and managers but at the expense of exacerbating the agency conflict between shareholders and bondholders. Hence, hypothesis four (H4) is accepted.

5. Conclusion

Optimal cash holding and strong corporate governance structures are vital for increasing the value of the firm and maximizing the wealth of shareholders. However, prior literature suggests that the governance characteristics and cash holdings structures change at various life cycles of the firm. Therefore, this study has addressed 100 companies in the non-financial firms at Saudi Stock Exchange (TADAWUL), using the random-effect generalized least square (GLS) regression model to study the effect of internal monitoring mechanisms (foreign ownership, family ownership, institutional and managerial ownership) on the cash holdings of a firm.

The results of this study indicate several factors affecting cash holdings. The results show foreign and family ownership negatively influences the level of cash holdings, while managerial ownership has a significant and positive association with cash holdings. The results also indicate a non-significant relationship between institutional ownership and firm complexity as well as level cash holdings in Saudi Arabia.

These outcomes suggest foreign ownership and family ownership should be encouraged in listed companies as that they can replace for the weakness of other (CG) mechanisms. The outcomes of the current study should be of great interest to regulators and policy-makers. The results, which are robust to a range of alternative proxies and additional tests, provide new insights into the determinants of cash holdings. In addition, the result of this study could notify the government to develop the Saudi Arabian corporate governance code and tighten the penalties of companies that do not comply with the requirements of such code.

However, this research is limited to the region of Saudi Arabia with a small sample size. Future research should test the arguments and conclusions of this study in different contexts as knowledge of the interactions of the effects of different ownership structures remains limited. Better research along with improved literature is much needed for the effects of various metrics about ownership on cash holdings, especially in emerging markets.

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