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The Level of Cash Holdings and Financial Performance: Evidence from Firms Listed on Borsa Istanbul 50 Index

Ahmet ÖZCAN[1]

Abstract
Cash is of great importance to firms operating in emerging economies. Cash, one of the most important assets, creates shareholder value when rationally used by firm management. This paper aims to reveal the relationship between financial performance and cash holdings by using a sample that consists of non-financial firms listed in Borsa Istanbul 50 index. The result of empirical analysis provides strong evidence that financial performance is positively influenced by cash holdings. Further, firm size, capital intensity ratio and current ratio did not significantly influence the financial performance of sample firms, while financial performance of sample firms is significantly influenced sales growth and financial leverage. Overall, the research findings indicate that firm-specific factors are important factors that affect the relationship between financial performance and cash holdings. The present paper provides important insights for creditors, shareholders and firm management on the impacts of cash holding levels on financial performance.

Keywords: Cash Holdings, Financial Performance, Cash Management

Nakit Bulundurma Düzeyi ve Finansal Performans: Borsa İstanbul 50 Endeksinde Yer Alan Firmalardan Kanıtlar

Öz
Gelişmekte olan ülkelerde faaliyet gösteren firmalar için nakit büyük bir önem arz etmektedir. Firmalar için en önemli varlıklar arasında yer alan nakit, firma yönetimi tarafından rasyonel olarak kullanılması durumunda hissedar değerini artırmaktadır. Bu makale, Borsa İstanbul 50 endeksinde yer alan finansal olmayan firmalardan oluşan bir örneklem kullanarak finansal performans ile nakit bulundurma düzeyi arasındaki ilişkiyi araştırmayı amaçlamaktadır. Regresyon analizinin sonuçları, finansal performansın yüksek düzeyde tutulan nakit varlıklardan olumlu etkilendiğine dair güçlü kanıtlar sunmaktadır. Ayrıca, firma büyüklüğü, sermaye yoğunluğu oranı ve cari oran, örnek firmaların finansal performansını önemli ölçüde etkilemezken, satış büyümesi ve finansal kaldıraç örnek firmaların finansal performansını önemli ölçüde etkilemektedir. Genel olarak, araştırma bulguları, firmaya özgü faktörlerin finansal performans ile nakit tutma arasındaki ilişkiyi etkileyen önemli faktörler olduğunu göstermektedir. Bu çalışma kreditörler, hissedarlar ve firma yönetimi için nakit tutma seviyesinin finansal performans üzerindeki etkileri hakkında önemli bilgiler sunmaktadır.

Anahtar Kelimeler: Nakit Bulundurma, Finansal Performans, Nakit Yönetimi

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[1] Doç. Dr. - Adana Alparslan Türkeş Science and Technology University, Faculty of Business, aozcan@atu.edu.tr,
ORCID: 0000-0002-9021-6096

Introduction

Firms hold a variety of assets to generate future economic benefits. Financial performance is one of the broad topics in the current business environment and grabs too much attention from creditors and investors. Poor financial performance can reduce firms' financial strength, erode investor confidence and prevent them from access to external financing. Many studies have tried to identify key factors that affect financial performance. Some of the studies found that firm-specific factors such as the level of cash holding have a great impact on the financial performance of firms.

Cash is an important strategic asset that a firm holds. In the modern economy, cash assets are viewed as a prominent key that enables firms to boost their financial performance. Firms are expected to effectively use cash assets to gain competitive advantage, increase financial flexibility and exploit investment opportunities (Yun et al., 2021).

Business history has recorded many failures caused by poor cash flow management in the last decade. In today's competitive business environment, cash management is one of the issues that business management should pay close attention in making strategic decisions. There are many acceptable reasons for firms to hold so much cash. Firms aim to hold so much cash in order to minimize business uncertainty and assess investment opportunities (La Rocca and Cambrea, 2019).

According to the modern approach, the high level of cash holding positively influences the value of the firms. By using the cash flow statement of firms, all factors affecting firms' cash position can be comprehensively analyzed. The level of firms' cash holding is affected by many factors such as sector in which firms operate, the organizational structure and the level of internationalization.

The success of firms' board of directors closely depends on the cash management. Effective cash management is an essential for firms in maximizing shareholders' value. Future cash inflows and outflows prominently influence the financial performance of firms. Analyzing cash inflows and outflows in detail and taking corrective actions are important for the sustainability of firms' operations.

The level of cash holding should be determined at an optimal level. The low level of cash holdings can cause firms to miss out on important investment opportunities (Seifert and Gonenc, 2018). Fluctuations in global financial markets increase the financial risk of firms. In such periods, the high level of cash holding helps firms reduce their financial risks. On the other hand, Brealey et al. (2003) claimed that holding too much cash may enable the firm management to increase their wages.

When determining the optimal level of cash holdings, firm management should take into consideration the disadvantages of cash holdings. In firms having excessive cash reserves, firm management can invest resources in unprofitable projects. Thus, firms should establish effective corporate governance mechanisms that can mitigate poor managerial behaviors. Free cash flow theory purports that cash holdings can lead agency costs, since firm management has a large amount of cash under their control. It is worth stating that firm management should be aware that inflation hugely erodes purchasing power of cash.

Pecking order theory, trade-off theory and free cash flow theory are used to clarify the relationship that exists between the level of cash holding and financial performance of firms. According to the pecking order theory, firms strive to minimize the cost of financing while making their financing choices. Pecking order theory argues that firms firstly use their retained earnings when investing, then borrow from outside and finally issue stocks (Ghosh et al., 2017).

According to the trade-off theory, firms should analyze the benefits and costs of holding cash in detail while determining the optimal level of cash holding (Dittmar et al., 2003). By holding the optimal level of cash, firms can ensure the sustainability of their operations and decrease the possibility of financial distress and dependence on external financing sources (Bates et al., 2009).

In 1986, Jensen published a study that analyzed agency theory from a different perspective. In this study, he purported that free cash flows hugely increase agency problems. Jensen (1986) argued that the firm management can utilize cash assets in investment projects that best suit their interests, if the firm management does not distribute the cash assets as dividends to the firm's shareholders or use them for stock repurchases.

The contribution of the present paper to the previous literature is dual. Firstly, the previous literature on the influence of cash holdings on financial performance of businesses operating in developing market is limited, this paper yields up-to date empirical evidence on the impact of cash holdings on profitability of firms in a developing market context. Secondly, the present paper attempts to construct a model that clarifies the effects of cash holdings on profitability of firms operating in developing market.

This study aims to analyze relationship between the level of cash holding and financial performance by using the financial statement data of non-financial firms listed in Borsa Istanbul 50 index. In the second section of the present study, the literature on the relationship between the level of cash holding and firm performance is reviewed. Third section presented the data used in the study and the research model. Fourth section discussed the results of the empirical analysis in detail. The last section concluded the paper and gave recommendations for future studies.

Literature Review

The level of cash holding has a significant impact on the efficiency of firms' business operations. The topic of cash holdings has grabbed the attention of academics and practitioners over the last decade. Numerous research papers that investigated the relationship between the level of cash holding and financial performance have reported contradictory findings. In this section of the study, previous studies in this field are presented.

Yun et al. (2021) claimed that the high level of cash holding positively affects the financial performance of firms with strong corporate governance mechanisms by using the financial statements of firms operating in China. They also put forward that the high level of cash holding does not positively influence financial performance of firms with high ownership concentration.

Jabbouri and Almustafa (2021) found that there is a positive relationship between the level of cash holding and financial performance by employing the financial statement data of sample firms operating in the Middle East and North Africa. In their study, it is stated that cash assets can be used in financing investment projects that can enhance sample firms' financial performance and financial flexibility level.

By using the financial statement data of 261 firms operating in Italy, Rocca and Cambrea (2019) examined the effect of the level of cash holding on the financial performance. According to the results of the analysis, the high indebtedness ratio reduces the effect of cash holding level on financial performance and the presence of institutional investors increases the positive effect of cash holding on financial performance.

Isshaq et al. (2009) found evidence that the effect of cash holding level on firm value is limited by using the financial statement data of firms operating in Ghana between 2001 and 2007. Opler et al. (1999) argued that firms operating in the United States hold too much cash to not miss out profitable investments and the high level of cash holding increases the value of the firms by reducing the cost of financing.

Harford et al. (2008), using financial statement data of 1872 publicly traded businesses operating in the United States between 1993 and 2004, found that businesses with weak corporate governance report lower levels of cash and firms' cash position has important impacts on their future financial performance.

Pinkowitz et al. (2013) documented that firms achieving high financial performance hold a high level of cash and firms with high levels of cash are in a better position to meet their operational expenses, fulfill their debt obligations and exploit profitable investment opportunities. Lian and Ma (2021) claimed that cash can serve as a high-quality collateral, significantly facilitating firms' access to external financing.

Eljelly (2004) investigated the association between cash cycle and profitability using a sample that includes 29 firms operating in Saudi Arabia. The result of empirical analysis indicated that there is an inverse relationship between financial performance and cash cycle.

Doan (2020) investigated the impacts of cash holding on financial performance of firms operating in Vietnam during the period between 2008 and 2018 and found that financial performance of sample firms is positively influenced by cash holdings. The author also claimed that the tangible assets, sales growth and external financing have considerable impacts on financial performance of sample firms. Chang and Yang (2022) scrutinized the role of cash holdings in the period of financial crisis. According to the results of empirical analysis, they found that the operating performance of firms having higher cash holdings

recovers more quickly and higher cash holdings boosts capital expenditure and research and development expenditure that contribute to enhance financial performance.

El-Ansary and Al-Gazzar (2021) analyzed the effects of cash holdings on profitability of firms operating in Middle East and North Africa. Size, financial leverage and sales growth rate are used as control variables and return on assets and return on equity are used as dependent variable in the empirical model. The results of empirical analysis indicate that high level of cash holding levels enhances the profitability of sample firms.

Alnori and Bugshan (2023) investigated the association between cash holdings and financial performance employing a sample of firms listed on Gulf Cooperation Council markets. The results of regression analysis reveal that cash holdings significantly help sample firms increase profitability. Authors also stated that liquidity management should be one of the most important issues for firms.

Karim et al. (2023) examined the role of cash conversion cycle in financial performance of businesses listed on Dhaka Stock Exchange during the period between 2003 and 2020. The result of empirical analysis demonstrated that cash conversion cycle is negatively associated with financial performance measures such as return on assets and earnings per share. The authors claimed that long cash conversion cycle can considerably increase the cost of external financing.

Jiang et al. (2023) examined the effects of cash holding level on financial performance reported by firms operating in Pakistan during 2010 and 2017. They found that cash holdings have adverse impacts on financial performance of firms operating in service industry and corporate governance variables such as board diversity and board size have no impact on cash holding levels of sample firms.

Chintha and Prasad (2021) analyzed the effects of cash management on profitability of manufacturing firms operating in Oman during the period between 2014 and 2019. With the help of regression analysis, the authors put forward that effective cash management plays a prominent role in increasing sample firms' financial performance.

Guo et al. (2021) researched how cash holdings influence the firm efficiency by using financial data of firms operating in the United States, China and Japan. They found that a high level of cash holdings negatively influences the efficiency of sample firms and also claimed that firms that hoard a high level of cash holdings are not able to report strong investment performance.

Data and Methodology

Undoubtedly, there are various factors affecting the financial performance of firms. Some of them are external factors that firms may struggle to cope with. The research data was collected from the website of public disclosure platform. Following previous studies (Yun et al., 2021; Jebran et al., 2019 and Sun et al., 2017), firms operating in the financial industry are excluded from the sample, since their balance sheet structure is vastly different. The sample consists of 40 non-financial firms and 1400 observations for the period between 2016 and 2020. The sample firms are quoted in BIST-50 index. The following empirical model is used to analyze the contribution of cash holdings to the financial performance of sample firms. In this model, six independent variables are employed. The control variables used in the empirical model are in line with Jabbouri and Almustafa (2021), Yun et al. (2021) and Rocca and Cambrea (2019).

$$FIN\_PERF_{it} = \beta_0 + \beta_1 CASH_{it} + \beta_2 SG_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 CIR_{it} + \beta_6 CR_{it} + \varepsilon_{it}$$

in which;

FIN_ PERF is the financial performance measured by return on assets. *CASH* is the cash holdings of the sample firm's measured by the ratio of cash and cash equivalents to the total net assets. *SG* is the sales growth measured by percentage change in net sales revenue from year t to year t-1. *LEV* is the leverage measured by the ratio of total liabilities to total assets. *SIZE* is the firm size measured by the natural logarithm of the sample firm's total assets. *CIR* is the capital intensity ratio measured by the ratio of total assets to the net sales revenue. *CR* is the current ratio measured by the ratio of current assets to current liabilities. ε is the error term.

Size is one of the important factors that influence the level of cash holdings and profitability. Pecking order theory states that there is a positive association between firm size and the level of cash holdings. Large-sized firms tend to employ economies of scale to reduce transaction costs which are mainly composed of fixed costs (Chireka and Fakoya, 2017). Guizani (2017) stated that large-sized firms have

stable cash flows due to having diversified business operations, accordingly they are less likely to experience financial distress. The variable of size is included in the empirical model in order to capture the effects of firm size on profitability and the level of cash holdings.

In the business environment, the level of financial leverage varies according to the macroeconomic conditions and industry in which businesses operate. Trade-off theory claims that high-leverage businesses are more likely to encounter liquidity problems. Hence, high-leverage firms tend to hold more cash to mitigate the risk of bankruptcy. It is also worth stating that high-level of leverage exerts pressure on firms' profitability. Leverage is included in the empirical model to measure its effects on the association between cash holdings and profitability.

Current ratio, one of the liquidity ratios, can influence the level of cash holdings and profitability of firms. Pecking order theory states that firms with high profits have a high degree of liquidity. Profits reported by firms can be used to pay off short-term debts. Sales growth plays a vital role for sustainable profitability. Strong sales growth enables firms to report high financial performance and hold high cash levels. Margaritis and Psillaki (2010) stated that firms with a high level of sales growth can effectively evaluate investment opportunities. Capital intensity ratio enables us to examine how well a firm is employing its assets. The profitability of a firm is heavily affected by capital intensity ratio that has a direct influence on the level of liquidity.

Results and Discussion

Industry Classification

According to table 1, the sample firms operate in eleven different industries. Ten of the firms operate in the metal industry. The second largest group of firms (20%) are concentrated in chemicals and petroleum industry. They are followed by four firms in technology industry and four firms in wholesale and retail trade industry. Textile industry (3%) represents the smallest group in the sample.

Table 1. *Industry Classification of Sample Firms*

Industry	*Percent*	*Number of Sample Firms*
Metal Products	25	10
Chemicals and Petroleum	20	8
Technology	10	4
Wholesale and Retail Trade	10	4
Energy	7	3
Transportation	5	2
Real Estate Investment	5	2
Mining	5	2
Construction	5	2
Telecommunication	5	2
Textile	3	1
Total	100	40

Descriptive Statistics

Table 2 presents the descriptive statistics for the research variables employed in the empirical analysis. For the sample firms, the mean of return on assets is 0.053. Return on assets ranges from -0.162 to 0.332. Cash holdings, the primary variable in the empirical model, has a mean of 0.178 and a standard deviation of 0.162. In other words, cash accounts for 17.8% of total net assets for the averaged sample firms listed in BIST-50 index. With regards to the standard deviation, current ratio is the variable that has the greatest dispersion around the mean. The average sales growth for the sample firms amounted to 0.224. The variable of leverage has a mean of 0.606 and ranges from 0.023 to 1.837, indicating that some of the sample firms face severe financial distress. Besides, the average capital intensity ratio is equal to 3.1.

Table 2. *Descriptive Statistics*

Variable	*Obs.*	*Mean*	*Std.Deviation*	*Min*	*Max*
ROA	200	0.053	0.068	-0.162	0.332
Cash Holdings	200	0.178	0.162	0.020	0.717
Sales Growth	200	0.224	0.247	-0.564	0.971
Leverage	200	0.606	0.255	0.023	1.837
Size	200	10.006	0.587	8.311	11.799
Capital Intensity Ratio	200	3.100	8.103	0.248	95.823
Current Ratio	200	3.590	13.740	0.240	176.680

* The definitions of variables are provided in third section.

Correlation Matrix

Pearson correlation matrix is presented in table 3. According to the table 3, the dependent variable, return on assets, is statistically significantly related with cash ratio, sales growth and leverage at the 0.01 significance level, whereas other independent variables do not have statistically significant relationship with financial performance. Capital intensity ratio and firm size are negatively correlated with financial performance, indicating that large-sized firms and firms having a higher capital intensity ratio report relatively lower return on assets. As reported in table 3, none of the correlations is greater than 0.6. Not surprisingly, the greatest correlation appears between leverage and cash holdings (-0.543). The correlation matrix reveals a significant positive relationship between cash holdings and current ratio at the 1 percent significance level.

Table 3. *Correlation Matrix*

Variable	*ROA*	*CASH*	*SG*	*LEV*	*CIR*	*SIZE*	*CR*
ROA	1.000						
CASH	0.290***	1.000					
SG	0.294***	0.119*	1.000				
LEV	-0.481***	-0.543***	-0.091	1.000			
CIR	-0.049	0.052	0.008	-0.321***	1.000		
SIZE	-0.085	-0.007	-0.110	0.188***	-0.159**	1.000	
CR	0.057	0.202***	0.219***	-0.379***	0.578***	-0.206***	1.000

Notes: ***, ** and * denote the significance levels of 1%, 5% and 10% respectively. The definitions of variables are provided in third section.

Diagnostic Tests

In this part of the study, Breusch Pagan LM, F- test and hausman test are used to select the appropriate model in the empirical analysis. Breusch Pagan LM test is a useful tool in choosing between pooled OLS and random effects model (Baltagi, 2006). The result of Breusch Pagan LM test reveals the presence of random effects in the sample data. Accordingly, random effects model is an appropriate model that analyzes research data better compared to the pooled OLS.

F-test is conducted in order to determine whether fixed effects model or pooled OLS provide accurate and reliable results. According to F- test, p-value (0.00) is statistically significant, indicating that all firm effects are equal to zero. Thus, fixed effect should be preferred rather than pooled OLS model in the empirical analysis.

Hausman test is run to examine the appropriateness of fixed effects model or random effects model for the panel data regression analysis. As can be seen from table 4, fixed effects model should be employed in analyzing of research data since p-value (0.03) is statistically significant.

Fixed effects regression method is more credible than other regression methods. Fixed effects method enables researchers to control time invariant omitted explanatory variables (Schunck, 2013; Collischon and Eberl, 2020). Fixed effects method mitigates collinearity among research variables and provides more data variability (Clark and Linzer, 2015).

Table 4. *Diagnostic Tests*

Hausman Test	Chi-square statistic= 13.90, p-value= 0.030
Breusch Pagan LM Test	Chi-square statistic= 91.44, p-value=0.000
F-test	F-statistic= 6.69, p-value = 0.000

Regression Results

This section is devoted to the discussion of the results of empirical analysis. Table 5 presents the empirical results of fixed effects regression model. The results of empirical analysis demonstrate that there is a statistically significant relationship between financial performance measured by return on assets and cash holdings at the 0.10 significance level, indicating that cash holdings enable firms to create value. Potential explanations for this finding are that high level of cash holdings limits the cost of external financing and enables firms to exploit remarkable investment opportunities. This result is consistent with the findings of Yun et al. (2021), Alnori (2020), Abushammala and Sulaiman (2014) and Vishnani and Shah (2007). Based on this result, firms should effectively design cash holding policies that could enhance effectiveness of their operations.

The coefficient on sales growth is statistically significant at the 0.01 level. The results of fixed effects regression suggest that sales growth is positively related with higher financial performance, supporting the findings of Deb et al. (2017), Kim and Bettis (2014) and Rocca and Cambrea (2019).

As shown in table 5, there is a statistically significant relationship between financial performance measured by return on assets and leverage at 0.01 significance level. This finding implies that the presence of high debt negatively influences the sample firms' financial performance. Not surprisingly, financial distress caused by a high level of debt considerably reduces the firms' operational efficiency. In some situations, debt covenants may prevent firms undertaking profitable investment projects. This finding suggests that firms should rely more on internal financing than external financing. This finding is consistent with Danso et al. (2020), Rocca and Cambrea (2019) and Yun et al. (2021). The results of fixed effects regression model indicate that size, capital intensity ratio and current ratio are not statistically significant. Dropping non-significant variables biases the impacts of other research variables. As reported in table 5, the explanatory power of the fixed effects model (r-squared=0.373) is significantly higher than other studies (Yun et al., 2021; Jabbouri and Almustafa, 2021). Taken together, the results of empirical analysis provide important implications for creditors, stockholders and firm management.

Table 5. *The Results of Fixed Effects Regression Model*

Variable	*Coefficients*	*Std. Error*	*p-value*
CASH	0.098*	0.0566	0.084
SG	0.06***	0.0127	0.000
LEV	-0.242***	0.0342	0.000
SIZE	0.010	0.0164	0.523
CIR	-0.00002	0.0006	0.967
CR	-0.0003	0.0002	0.267
Constant	0.0640	0.1633	0.693
Observation	1400		
R-squared	0.373		
F(6,154)	15.32		
Prob > F	0.000		

Notes: ***, ** and * denote the significance levels of 1%, 5% and 10% respectively. The definitions of variables are provided in third section.

Concluding Remarks

Financial performance plays a vital role in the sustainability of firms' operations. Firms should have a well-established strategic plan that can soar their financial performance. In today's economic environment, cash is regarded as one of the strategic assets that can enhance the effectiveness of firms' business operations. The ultimate objective of the present study is to clarify the contributions of firms' cash holding levels to the financial performance. The results of this study are in line with previous studies. Cash management appears to be one of the challenging issues in the globalized economic environment. It is worth stating that firms should update their cash holding policies according to the macroeconomic conditions.

In the empirical model, financial performance is measured by return on assets. Control variables such as sales growth, leverage, firm size, capital intensity and current ratio are used to invigorate the empirical model. The present study confirmed that higher cash holding positively influences financial performance. High financial performance appears to be outcome of the high level of cash holding based on the results of empirical analysis.

The findings of this paper shed light on the association between cash holdings and profitability in the context of developing markets. The findings of the present study are supported by previous studies (El-Ansary and Al-Gazzar, 2021; Alnori and Bugshan, 2023; Chintha and Prasad, 2021). The results of empirical analysis corroborate the existence of cash holdings level that enhances the profitability of firms. It is noteworthy that this level changes according to the firm-specific factors such as liquidity, capital intensity ratio and size. High level of cash holdings markedly decreases cash flow uncertainty and financial risk.

Overall, cash is one of the strategic assets that should be meticulously used by firms in gaining competitive advantage, exploiting investment opportunities and increasing financial flexibility in the business environment. The present paper yields vital insights for creditors, stockholders and corporate management on the impacts of cash holding levels in financial performance. Future studies can employ cross-country data to analyze the role of cash holding levels in financial performance from different perspectives.

Ethical Declaration

In the writing process of the study titled *"The Level of Cash Holdings and Financial Performance: Evidence from Firms Listed on Borsa Istanbul 50 Index",* there were followed the scientific, ethical and the citation rules; was not made any falsification on the collected data and this study was not sent to any other academic media for evaluation.

Declaration of Conflict

There is no potential conflict of interest in the study.

References

Abushammala, S. N., & Sulaiman, J. (2014). Cash holdings and corporate profitability: Some evidences form Jordan. *International Journal of Innovation and Applied Studies*, *8*(3), 898-907.

Alnori, F. (2020). Cash holdings: Do they boost or hurt firms' performance? Evidence from listed non-financial firms in Saudi Arabia. *International Journal of Islamic and Middle Eastern Finance and Management*, 13(5), 919-934.

Alnori, F., & Bugshan, A. (2023). Cash holdings and firm performance: empirical analysis from Shariah-compliant and conventional corporations. *International Journal of Islamic and Middle Eastern Finance and Management*, *16*(3), 498-515.

Baltagi, B. H. (Ed.). (2006). *Panel data econometrics: Theoretical contributions and empirical applications*. Emerald Group Publishing.

Bates, T. W., Kahle, K. M., & Stulz, R. M. (2009). Why do US firms hold so much more cash than they used to?. *The Journal of Finance*, *64*(5), 1985-2021.

Brealey, R. A., Myers, S. C., Sandri, S., & Bigelli, M. (2003). *Principi di finanza aziendale*. Milano: McGraw-Hill.

Chang, C. C., & Yang, H. (2022). The role of cash holdings during financial crises. Pacific-Basin Finance Journal, 72, 101733.

Chintha, S. S., & Prasad, K. V. (2021). A study on the impact of cash management on the financial performance of the listed manufacturing companies from Muscat securities market, Sultanate of Oman. *International Journal of Business and Administrative Studies*, 7(1), 25.

Chireka, T., & Fakoya, M. B. (2017). The determinants of corporate cash holdings levels: evidence from selected South African retail firms. *Investment Management and Financial Innovations*, *14*(2), 79-93.

Clark, T. S., & Linzer, D. A. (2015). Should I use fixed or random effects?. *Political Science Research and Methods*, 3(2), 399-408.

Collischon, M., & Eberl, A. (2020). Let's talk about fixed effects: Let's talk about all the good things and the bad things. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, *72*(2), 289-299.

Danso, A., Lartey, T. A., Gyimah, D., & Adu-Ameyaw, E. (2020). Leverage and performance: do size and crisis matter?. *Managerial Finance*, 47(5), 635-655.

Deb, P., David, P., & O'Brien, J. (2017). When is cash good or bad for firm performance?. *Strategic Management Journal*, *38*(2), 436-454.

Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative Analysis*, *38*(1), 111-133.

Doan, T. (2020). The effect of cash holdings on firm performance: Evidence from Vietnam listed firms. Accounting, 6(5), 721-726.

El-Ansary, O., & Al-Gazzar, H. (2021). Working capital and financial performance in MENA region. *Journal of Humanities and Applied Social Sciences*, *3*(4), 257-280.

Eljelly, A. M. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International Journal of Commerce and Management*, 14(2), 48-61.

Ghosh, A., Cai, F., & Fosberg, R. H. (2017). *Capital structure and firm performance*. Routledge.
Guizani, M. (2017). The financial determinants of corporate cash holdings in an oil rich country: Evidence from Kingdom of Saudi Arabia. *Borsa Istanbul Review*, *17*(3), 133-143.
Guo, H., Legesse, T. S., Tang, J., & Wu, Z. (2021). Financial leverage and firm efficiency: The mediating role of cash holding. *Applied Economics*, 53(18), 2108-2124.
Harford, J., Mansi, S. A., & Maxwell, W. F. (2008). Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, *87*(3), 535-555.
Isshaq, Z., Bokpin, G. A., & Onumah, J. M. (2009). Corporate governance, ownership structure, cash holdings, and firm value on the Ghana Stock Exchange. *The Journal of Risk Finance*, *10*(5), 488-499.
Jabbouri, I., & Almustafa, H. (2021). Corporate cash holdings, firm performance and national governance: evidence from emerging markets. *International Journal of Managerial Finance*, 17(5), 783-801.
Jebran, K., Chen, S., & Tauni, M. Z. (2019). Principal-principal conflicts and corporate cash holdings: Evidence from China. *Research in International Business and Finance*, *49*, 55-70.
Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, *76*(2), 323-329.
Jiang, Y., Mubarik, M. S., Zaman, S. I., Alam, S. H., & Arif, M. (2023). Corporate governance, cash holding, and firm performance in an emerging market. *International Journal of Finance and Economics*.
Karim, R., Al Mamun, M. A., & Kamruzzaman, A. S. M. (2023). Cash conversion cycle and financial performance: evidence from manufacturing firms of Bangladesh. *Asian Journal of Economics and Banking*.
Kim, C., & Bettis, R. A. (2014). Cash is surprisingly valuable as a strategic asset. *Strategic Management Journal*, *35*(13), 2053-2063.
La Rocca, M., & Cambrea, D. R. (2019). The effect of cash holdings on firm performance in large Italian companies. *Journal of International Financial Management & Accounting*, *30*(1), 30-59.
Lian, C., & Ma, Y. (2021). Anatomy of corporate borrowing constraints. *The Quarterly Journal of Economics*, *136*(1), 229-291.
Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 34(3), 621-632.
Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of financial economics*, *52*(1), 3-46.
Pinkowitz, L., Stulz, R. M., & Williamson, R. (2013). Is there a US high cash holdings puzzle after the financial crisis?. *Fisher College of Business Working Paper*, (2013-03), 07.
Schunck, R. (2013). Within and between estimates in random-effects models: Advantages and drawbacks of correlated random effects and hybrid models. *The Stata Journal*, *13*(1), 65-76.
Seifert, B., & Gonenc, H. (2018). The effects of country and firm-level governance on cash management. *Journal of International Financial Markets, Institutions and Money*, *52*, 1-16.
Sun, J., Yuan, R., Cao, F., & Wang, B. (2017). Principal–principal agency problems and stock price crash risk: Evidence from the split-share structure reform in China. *Corporate Governance: An International Review*, *25*(3), 186-199.
Vishnani, S., & Shah, B. K. (2007). Impact of working capital management policies on corporate performance—An empirical study. *Global Business Review*, *8*(2), 267-281.
Yun, J., Ahmad, H., Jebran, K., & Muhammad, S. (2021). Cash holdings and firm performance relationship: Do firm-specific factors matter?. *Economic Research-Ekonomska Istraživanja*, *34*(1), 1283-1305.

TÜRKÇE GENİŞ ÖZET

Firmalar, gelecekte ekonomik faydalar elde etmek için çeşitli varlıklara sahiptir. Finansal performans, küresel ekonomide önemli konulardan biridir ve finansal piyasa katılımcılarının çok fazla ilgisini çekmektedir. Zayıf finansal performans, firmaların finansal gücünü azaltabilir, yatırımcı güvenini aşındırabilir ve dış finansmana erişimlerini engelleyebilir. Birçok çalışma, finansal performansı etkileyen temel faktörleri belirlemeye çalışmaktadır. Çalışmalardan bazıları, nakit tutma düzeyi gibi firmaya özgü faktörlerin firmaların finansal performansı üzerinde büyük bir etkiye sahip olduğunu tespit etmiştir. Nakit, bir firmanın sahip olduğu önemli bir stratejik varlıktır. Günümüzdeki rekabetçi ekonomik ortamda nakit varlıklar, firmaların finansal performanslarını artırmalarına imkan sağlayan önemli bir anahtar olarak görülmektedir. Firmaların rekabet avantajı elde etmek, finansal esnekliği artırmak ve yatırım fırsatlarından yararlanmak için nakit varlıklarını etkin bir şekilde kullanmaları beklenmektedir. Günümüzün ekonomik ortamında nakit yönetimi, işletme yönetiminin stratejik kararlar alırken en çok dikkat etmesi gereken konulardan birisidir. Firmaların nakit pozisyonlarını güçlü tutmaları için çeşitli nedenler bulunmaktadır. Genel olarak, firmalar gelecekteki ekonomik belirsizlikleri en aza indirmek ve yatırım fırsatlarını değerlendirmek için nakit pozisyonlarının güçlü olmasını amaçlamaktadır. Nakit yönetiminin firmaların yönetim kurullarının alacağı kararlar üzerinde önemli etkileri bulunmaktadır. Etkili nakit yönetimi, hissedar değerini en üst düzeye çıkarmak için firmalar açısından önemlidir. Nakit giriş ve çıkışlarının detaylı olarak analiz edilmesi ve düzeltici kararların alınması firmaların faaliyetlerinin sürdürülebilirliği açısından büyük

önem arz etmektedir. Finansal hiyerarşi teorisi, dengeleme teorisi ve serbest nakit akış teorisi nakit tutma düzeyi ile firmaların finansal performansı arasındaki ilişkiyi analiz etmek için kullanılmaktadır. Finansal hiyerarşi teorisine göre firmalar finansman seçimlerini yaparken finansman maliyetlerini en aza indirmeye çalışırlar. Finansal hiyerarşi teorisi, firmaların yatırım yaparken önce kar yedeklerini ardından yabancı kaynakları kullandıklarını ve en sonunda da hisse senedi ihraç ettiklerini savunmaktadır. Dengeleme teorisine göre, firmalar optimum nakit tutma seviyesini belirlerken nakit tutmanın faydalarını ve maliyetlerini ayrıntılı olarak analiz etmelidir. Firmalar optimum düzeyde nakit bulundurarak faaliyetlerinin sürdürülebilirliğini sağlayabilir, finansal sıkıntı olasılığını ve dış finansman kaynaklarına olan bağımlılığı azaltabilir. 1986'da Jensen, vekalet teorisini farklı bir bakış açısıyla analiz eden bir çalışma yayınladı. Bu çalışmada, serbest nakit akışlarının vekalet problemlerini büyük ölçüde artırdığını iddia etmektedir. Jensen (1986), firma yönetiminin nakit varlıkları şirketin hissedarlarına temettü olarak dağıtmaması veya hisse geri alımları için kullanmaması durumunda, firma yönetiminin nakit varlıkları kendi çıkarlarına en uygun olan yatırım projelerinde kullanabileceğini savundu. Modern yaklaşıma göre, yüksek düzeyde nakit tutma, firmaların değerini olumlu yönde etkiler. Firmaların nakit akış tablosu kullanılarak firmaların nakit pozisyonunu etkileyen tüm faktörler kapsamlı bir şekilde analiz edilebilir. Firmaların nakit tutma düzeyi, firmaların faaliyet gösterdiği sektör, organizasyon yapısı ve uluslararasılaşma düzeyi gibi birçok faktörden etkilenmektedir. Nakit tutma düzeyi optimal düzeyde belirlenmelidir. Düşük seviyede nakit tutma, firmaların önemli yatırım fırsatlarını kaçırmasına neden olmaktadır. Firmaların nakit tutma politikalarını makroekonomik koşullara göre güncellemesi gerektiğini belirtmekte fayda var. Nakit bulundurma seviyesi firmaların faaliyetlerinin verimliliğini önemli ölçüde etkilemektedir. Nakit bulundurma seviyesi ve finansal performans arasındaki ilişki son yıllarda yatırımcıların dikkatini çekmektedir. Bu çalışma, Borsa İstanbul 50 endeksinde işlem gören finansal olmayan firmaların finansal tablo verilerini kullanarak nakit tutma düzeyi ile finansal performans arasındaki ilişkiyi analiz etmeyi amaçlamaktadır. Finans sektöründe faaliyet gösteren firmalar, bilanço yapılarının çok farklı olması nedeniyle örneklemin dışında tutulmuştur. Araştırmada Borsa İstanbul 50 endeksinde işlem gören finansal olmayan 40 firmanın 2016-2020 dönemleri arasında yayınlamış olduğu mali tablo verileri kullanılmıştır.Varlık karlılığı araştırma modelinde bağımlı değişken olarak kullanılmaktadır. Nakit ve nakit benzerlerinin toplam net varlıklara oranı, satışlarda büyüme, finansal kaldıraç, firma büyüklüğü, sermaye yoğunluğu oranı ve cari oran araştırma modelinde bağımsız değişken olarak kullanılmaktadır. Araştırmada verileri kullanılan firmalar on bir farklı sektörde faaliyet göstermektedir. Korelasyon matrisine göre sermaye yoğunluk oranı ve firma büyüklüğü, finansal performans ile negatif bir şekilde ilişkilidir; bu sonuç büyük ölçekli firmaların ve daha yüksek sermaye yoğunluk oranına sahip olan firmaların daha düşük varlık karlılığı rapor ettiğini göstermektedir. Finansal kaldıraç ve nakit bulundurma seviyesi arasında negatif yönlü bir ilişki söz konusudur. Sabit etkiler regresyon modeli kullanılarak araştırma verileri analiz edilmiştir. Analiz sonuçları, finansal performans ile nakit bulundurma seviyesi arasında istatistiksel olarak anlamlı bir ilişki olduğunu göstermektedir. Sabit etkiler regresyon modelinin sonuçlarına göre firma büyüklüğü, sermaye yoğunluk oranı ve cari oranın finansal performans üzerinde istatistiksel olarak anlamlı etkisi bulunmamaktadır ve yüksek düzeyde borç kullanımı firmaların finansal performansını olumsuz olarak etkilemektedir. Yüksek düzeyde nakit tutma, dış finansman maliyetinin azalmasına ve firmaların önemli yatırım fırsatlarından yararlanmalarına imkan vermesi sayesinde finansal performans üzerinde olumlu etkileri bulunmaktadır. Araştırma sonuçları kreditörler, hissedarlar, tedarikçiler ve firma yönetimi için önemli çıkarımlar sağlamaktadır.