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Investigating the Effect of Business Strategy and Corporate Governance on Cash Balance Policies of Listed Companies in Tehran Stock Exchange

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Abstract

This study aims to investigate the effect of business strategy and corporate governance on maintaining cash balance policies in companies listed on the Tehran Stock Exchange. Accordingly, the annual data of 108 listed companies on the Tehran Stock Exchange during 2011 to 2019, unit root panel tests of Im, Pesaran, and Shim and *Levin*–Lin–the Chu was used. In addition, the f test was used to select one of the panel data and pooled data methods, and the Hausman test was used to select one of the fixed effects and random-effects models. This study showed that the company's strategy had a negative and significant effect on the cash balance of listed companies on the Tehran Stock Exchange. Thus, it can be stated that with increasing the company's prospector business strategies, the need for investment and innovation in the company will increase. Accordingly, companies' cash balance will decrease. Also, with an increase in the proportion of non-executive members on the board, the cash balance of companies decreased due to the lack of attention to voluntary opportunities, so the cash balance decreased significantly.

Keywords: business strategy, corporate governance, cash balance, listed companies in Tehran Stock Exchange

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1. Introduction

Cash is one of the most important domestic capital sources, so that cash was more than 23% of companies' assets, equivalent to 12.5% of US GDP in 2015 (Ward et al., 2018). The main advantage of cash holdings is increasing the company's ability to take advantage of valuable investment opportunities and avoiding expensive foreign financing. By holding more cash, managers increase the resources under their control and prefer to work with the cash in the company so that they are not forced to provide detailed information to the capital market (Ferreira and Vilela, 2004). However, cash holdings are associated with costs, the most important of which is the cost of missing an opportunity to hold cash (Magerakis and Tzelepis, 2020). Considering the benefits and costs of cash holdings, identifying the factors affecting held cash has always been a debatable issue in the financial world. Various theories have been proposed in this area, including Pecking Order Theory and Trade-off Theory. However, various studies have been conducted in this area, including the studies conducted by Dittmar et al. (2003), Ferreira and Vilela (2004), Al-Najjar (2013), Fernandes and Gonenc (2016), Orlova and Sun (2018), and Magerakis and Tzelepis (2020). Different factors affecting holding cash in different countries have been studied in each study, and different results have been reported. Studies such as Orlova and Sun (2018) and Magerakis and Tzelepis (2020) have identified corporate governance and business strategy as two variables affecting cash holdings in companies. Corporate managers need to determine the optimal policies for cash balance to achieve their goals. Depending on the inflow into the company, managers must allocate their financial resources for investing and cash holding. Previous studies have indicated that most managers tend to hold their cash balance due to the reduced risk of futures trades and the ability to pay costs (Acharya et al., 2012; Fernandes and Gonenc, 2016; Magerakis and Tzelepis, 2020). Also, corporate governance mechanisms are one of the factors that cause a company's financial resources to be managed properly. Improving the quality of corporate governance leads to more efficient use of company resources to maximize company value and increase shareholder wealth and significantly reduce the risk of improper use of cash resources due to its effect on reducing agency conflicts (Boubaker et al., 2015; Orlova and Sun, 2018). Thus, it can be stated that both corporate governance and business strategy can affect cash holdings in different companies. In the present study, the effect of these two factors on the cash balances of listed companies on the Tehran Stock Exchange will be investigated. For this purpose, the present article is divided into five general sections. After stating the introduction in the first section, the theoretical foundations and background of the research will be reviewed in the second section. The third section of this study will present the model and describe the research variables. The fourth section will present the results of the model estimation. The fifth section will provide a summary and conclusion of the research.

2. Theoretical Foundations and Background of Research

As stated, companies' policies determine the level of cash holdings. In this regard, Almeida et al. (2014) state that increasing the company's liquidity prevents the firm from entering into investment activities that increase the company's value, so cash holdings reduce growth rate, and managers must minimize the cost of cash holdings based on the opportunities ahead. Accordingly, the type of management strategy can determine the level of cash holdings in a company (Almida et al., 2014; Wu et al., 2012; Higgins et al., 2015). If the business strategy is offensive and active, the main goal will always be to create innovation, produce new products and new investments. Hence, in this type of strategy, the company will need financial resources to expand its business, and it will experience less cash balance and higher risk. However, the conservative strategy will hold more cash due to the type of management (Magerakis and Tzelepis, 2020). Corporate governance can also determine cash

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holdings, as Chen (2008) stated that corporate governance could affect the use of cash holdings and investors' evaluation of cash. One of the functions of corporate governance is increasing investors' ability to assess using cash holding. Harford et al. (2008) stated that with increasing the likelihood of involvement of outside board members in management decisions, managers' personal interests would decrease. Kuan et al. (2011) showed that more non-executive members on board could effectively manage earnings, and board independence can significantly reduce opportunistic behavior (Greiner, 2013). Boubaker et al. (2013) investigated the effect of the board on the level of cash holding. Their research results revealed that the characteristics of the board had a positive and significant effect on cash holding. Wai and Zhu (2013) examined the relationship between corporate governance mechanism and cash holding in the Hong Kong Stock Exchange and concluded a negative and significant relationship between the duality of CEO duties and cash holding and a positive and significant relationship between managerial ownership and cash holding.

Raei et al. (2019) identified the factors affecting cash holdings in the companies listed on the Iranian Stock Exchange. In the mentioned study, using a stable variable based on the SCAD penalty function, it was shown that selecting a stable variable introduces variables as factors affecting cash holding that OLS regressions fail to identify. Joudi et al. (2019) investigated the role of corporate governance, quality of the relationship between cash holdings and company value at times of information asymmetry. In the mentioned study, which used data of 106 companies over ten years, the results showed that in the information asymmetry condition, the quality of strong (weak) corporate governance has a positive (negative) and significant effect on the relationship between cash holding and company value. Finally, Magerakis and Tzelepis (2020) investigated the effect of business strategy on cash holding in American companies. In the mentioned study, which used both defensively and prospector strategies, the results revealed that business strategy directly and significantly impacted cash holding in American companies.

3. Research Methodology

As mentioned, the present study aims at investigating the effect of business strategy and corporate governance on cash holdings in listed companies on the Tehran Stock Exchange. Accordingly, in this study, two econometric models will be estimated. In the first model, the effect of company strategy on cash holdings will be examined, and in the second model, the effect of corporate governance on demand will be analyzed. Therefore, the following models have been presented based on the Magerakis and Tzelepis (2020) and other related studies, access to information about listed companies in Tehran Stock Exchange, and by removing non-significant variables of the model.

$$cash_{it} = \beta_0 + \beta_1 Strategy_{it} + \beta_2 mtb_{it} + \beta_3 equity_{it} + \beta_4 loss_{it} + \beta_5 Size_{it} + \beta_6 nws_{it} + \beta_7 LEV_{it} + \varepsilon_{it} \quad (1)$$

$$cash_{it} = \beta_0 + \beta_1 CG_{it} + \beta_2 mtb_{it} + \beta_3 equity_{it} + \beta_4 loss_{it} + \beta_5 Size_{it} + \beta_6 nwc_{it} + \beta_7 LEV_{it} + \varepsilon_{it} \quad (2)$$

In the present study, the dependent variable is cash holdings (Cash). According to the study conducted by Magerakis and Tzelepis (2020), the level of cash or its equivalent in the company's assets has been used to measure this variable. The company's strategy has been measured according to the study conducted by Navissi et al. (2017). In this way, according to the 4 criteria, companies are classified into five classes, and the lowest is 1, and the highest is 5. Based on the sum of scores, the company's strategy is measured. A lower score indicates a defensive strategy, and higher scores indicate a prospector strategy. The ratio of non-executive board members to total board members has also been used to measure corporate governance. The control variables of this study are also measured

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based on the study conducted by Magerakis and Tzelepis (2020). To calculate Mtb, the ratio of market value to book value was used, to calculate equity, the total ratio of sold shares to total company value was used, to calculate loss, the amount of company loss was used, to calculate the size, the logarithm of the total assets of the company was used, to calculate NWC, the level of working capital was used and to calculate LEV, the ratio of debt to assets was used.

The statistical population of the present study included all listed companies in Tehran Stock Exchange. For this purpose, the annual data of the mentioned companies that were continuously active during the research period were used. The research period was 6 years, from 2011 to 2019. It was conducted on all listed companies on the Tehran Stock Exchange. In addition, to estimate the model, the data of 108 listed companies on the Tehran Stock Exchange in the mentioned period were used, and the systematic elimination method of selecting was used in this study. In this study, to estimate the proposed econometric model, a panel data method will be used. Before estimating the model, it is necessary to test the reliability of the variables. For this purpose, unit root panel tests of Im, Pesaran, and Shim and unit root panel tests of *Levin*–Lin–the Chu will be used. To estimate the model, the F test will be used to select one of the panel data, and pooled data, and the Hausman test will be used to select one of the fixed effects and random-effects models. In many cases, researchers can use the data panel in cases where issues cannot be examined only in time series or only cross-sectional manner. One of the data panel features is increasing the sample size, increasing the model efficiency, and reducing bias. The main reason for using this method was the existing statistical limitations, and the small number of samples and data panel method solved this problem. In this study, Eviews9 and other software, if needed, will be used.

4. Results

As stated above, in this study, to evaluate the reliability of the variables, two tests of Im, Pesaran, and Shim, and *Levin*–Lin–the Chu will be used. The results of these two tests for the research variables are presented in the table below. As shown in this table, the variables are at a reliable level based on both tests. Thus, the null hypothesis that states there is a unit root in the variables is rejected.

Table 1. Unit root test of variables

Variable	maximum	At least	Standard deviation	Average
Business Strategy	5	1	1	2.613
Company size	8.477	4.321	0.663	6.081
Corporate Governance	*0.*843	0.496	0.355	0.496
Financial leverage	0.782	0.012	0.249	0.628
Working capital	0.62	0.07	0.12	0.18
Company loss	0	-1327	118	-617
Market value to book value ratio	0.76	0.08	0.41	0.36

Results of the estimation of two research models are also presented in the table below. As shown in the table, the results of F-Limmer and Hausman F tests on both models confirm the use of the fixed effects method and panel data. Accordingly, two research models were estimated with the same method. The results of the F test, coefficient of determination, and Durbin-Watson show that the results obtained in the model can be trusted. Also, the coefficients obtained in both models are stable, so results will be reliable. As shown in the table, the coefficient related to the company's strategy variable is -0.458, and the probability level of this coefficient is 0.000. It indicates that the company's strategy has had a negative and significant effect on the cash balances of listed companies on the Tehran Stock Exchange. Thus, it can be stated that with the increasing prospector strategy of the company, the need for investment and innovation in the company will increase, and thus its cash

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balance will decrease. This causes the business strategy to have a negative and significant effect on the cash balances of listed companies on the Tehran Stock Exchange.

Table 2. Estimation results of research models

	First model		Second model	
explanatory variables	**Coefficient**	**Probability level**	**Statistic t**	**Probability level**
Business Strategy	-0.483	0.1	-	-
Corporate Governance (CG)	-	-	0.819	0.026
Market value to book value ratio (mtb)	2.713	0.66	2.228	0.066
Ratio of sold shares (equity)	-10e89.9	0.002	-10e92.9	0.003
Company size	0.066	0.001	0.05	0.001
Financial leverage (lev)	-0.009	0.008	-0.021	0.008
Working capital (nwc)	-0.462	0.003	-0.411	0.003
Company loss	0.161	0.000	0.158	0.000
Constant	22.384	0.001	9.038	0.001
first log of the dependent variable	0.038	0.000	0.714	0.0000
F-Limmer test	1.633	0.001	14.105	0.001
Hausman test	38.184	0.000	29.149	0.001
Statistic F	3.128	0.000	3.468	0.000
Durbin-Watson Statistics	2.468		2.018	
coefficient of determination	0.544		0.582	
The adjusted coefficient of determination	0.370		0.422	

Source: research findings

Also, the results of Model 2 estimation showed that the coefficient related to the corporate governance variable is positive, and the probability level also shows the significance of the results. Thus, it can be stated that with an increase in the proportion of non-executive members on board, the cash balance of companies decreased due to a lack of attention to voluntary opportunities. Hence, it can be stated that corporate governance has had a positive and significant effect on the cash balance of listed companies on the Tehran Stock Exchange.

5. Conclusion

Identifying the factors affecting cash holdings has always been a debatable issue in the financial world. Various theories have been proposed in this regard, including Pecking Order Theory and Trade-off Theory. Various studies have introduced corporate governance as well as a business strategy as two variables affecting cash holdings in companies. These studies show that most managers tend to hold their cash balance due to the reduced risk of futures trades and the ability to pay costs. Improving the quality of corporate governance leads to more efficient use of company resources to maximize the company's value and increase shareholder wealth and significantly reduce the risk of improper use of cash resources due to its effect on reducing agency conflicts. Thus, this study was an attempt to investigate this issue. To achieve this goal, the annual data of 108 companies listed on the Tehran Stock Exchange from 2011 to 2019 were used. To analyze the data, two tests of Im, Pesaran, and Shim, and *Levin*–Lin–Chu were used, and F test was used to select one of the panel data and pooled data methods, and Hausman test was used to select one of the fixed effects and random-effects models. The results showed that all variables are reliable, and research models should be estimated using the fixed effects method in panel data. The present study results showed that the company's strategy had a negative and significant effect on the cash balance of companies listed on

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the Tehran Stock Exchange. Therefore, it can be stated that with an increase in the prospector strategy of the company, the need for investment and innovation in the company will increase, so the companies' cash balance will decrease. Also, with an increase in the proportion of non-executive members on board, the cash balance of companies decreased due to a lack of attention to voluntary opportunities, so the cash balance decreased significantly. Based on the results of this study, it is recommended that different companies provide the conditions for the company's growth through investment by promoting their corporate governance and considering the interests of the company and its financial needs. In addition, due to the negative relationship between strategy and cash balance, managers looking for investment and growth need to think about financing if they need cash so that the company does not face a financial crisis in line with prospector strategies.

References

1. Almeida, H. Campello, M. Cunha, I. and Weisbach, M. S. (2014). Corporate liquidity management: A conceptual framework and survey. *Annu. Rev. Financ. Econ.*, *6*(1), 135-162. https://doi.org/10.1146/annurev-financial-110613-034502
2. Acharya, V. Davydenko, S. A. and Strebulaev, I. A. (2012). Cash holdings and credit risk. *The Review of Financial Studies*, *25*(12), 3572-3609. http://hdl.handle.net/10.1093/rfs/hhs106
3. Al-Najjar, B. (2013). The financial determinants of corporate cash holdings: Evidence from some emerging markets. *International business review*, *22*(1), 77-88. https://doi.org/10.1016/j.ibusrev.2012.02.004
4. Boubaker, S. Derouiche, I. and Nguyen, D. K. (2015). Does the board of directors affect cash holdings? A study of French listed firms. *Journal of Management & Governance*, *19*(2), 341-370. https://link.springer.com/article/10.1007/s10997-013-9261-x
5. Chen, Y. R. (2008). Corporate governance and cash holdings: Listed new economy versus old economy firms. *Corporate Governance: An International Review*, *16*(5), 430-442. https://doi.org/10.1111/j.1467-8683.2008.00701.x
6. Dittmar, A. Mahrt-Smith, J. and Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative analysis*, 38(1), 111-133. https://doi.org/10.2307/4126766
7. Fernandes, N. and Gonenc, H. (2016). Multinationals and cash holdings. *Journal of Corporate Finance*, *39*, 139-154. https://doi.org/10.1016/j.jcorpfin.2016.06.003
8. Ferreira, M. A. and Vilela, A. S. (2004). Why do firms hold cash? Evidence from EMU countries. *European financial management*, *10*(2), 295-319. https://doi.org/10.1111/j.1354-7798.2004.00251.x
9. Greiner. A, J. (2013). Consequences of real earnings management and weak corporate governance: evidence from cash holdings. available at http: www.utexas.summon. com,retrieverd on 10. 02. 2013.
10. Harford, J. Mansi, S. A. and Maxwell, W. F. (2008). Corporate governance and firm cash holdings in the US. *Journal of financial economics*, *87*(3), 535-555. https://doi.org/10.1016/j.jfineco.2007.04.002
11. Higgins, D. Omer, T. C. and Phillips, J. D. (2015). The influence of a firm's business strategy on its tax aggressiveness. *Contemporary Accounting Research*, *32*(2), 674-702. https://doi.org/10.1111/1911-3846.12087
12. Joudi, S. Mansourfar, G.and Didar, H. (2019). Internal and External Corporate Governance Quality, Information Asymmetry and Cash Holdings: Increase or Decrease in the Firm Value. *Accounting and Auditing Review*, *26*(1), 39-64.

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Archive of SID

https://doi.org/10.22059/acctgrev.2019.261197.1007924
13. Kuan, T. H. Li, C. S. and Chu, S. H. (2011). Cash holdings and corporate governance in family-controlled firms. *Journal of Business Research*, 64(7), 757-764. https://doi.org/10.1016/j.jbusres.2010.07.004
14. Magerakis, E. and Tzelepis, D. (2020). The impact of business strategy on corporate cash policy. *Journal of Applied Accounting Research*. 21(4), pp. 677-699. https://doi.org/10.1108/JAAR-05-2019-0077
15. Navissi, F. Sridharan, V. G. Khedmati, M. Lim, E. K. and Evdokimov, E. (2017). Business strategy, over-(under-) investment, and managerial compensation. *Journal of Management Accounting* Research, 29(2), 63-86. https://doi.org/10.2308/jmar-51537
16. Orlova, S. V. and Sun, L. (2018). Institutional determinants of cash holdings speed of adjustment. *Global Finance Journal*, 37, 123-137. https://doi.org/10.1016/j.gfj.2018.05.002
17. Raei, R. Fayyaz Heidari, K. Basakha, H. and Movaghari, H. (2019). Identification of the Factors Affecting Stored Corporate Cash in Tehran Stock Exchange: Robust Variable Selection Technique. *Financial Research Journal*, *21*(1), 1-18. https://doi.org/10.22059/frj.2018.124040.1005960
18. Ward, C. Yin, C. and Zeng, Y. (2018), Institutional investor monitoring motivation and the marginal value of cash. *Journal of Corporate finance*, *48*, 49-75. https://doi.org/10.1016/j.jcorpfin.2017.10.017
19. Wai, W. Y. and Zhu, Y. (2013). The Effect of Corporate Governance on Cash Holdings: Evidence *from Hong Kong* (Doctoral dissertation, Doctoral dissertation, Hong Kong Baptist University Hong Kong). https://libproject.hkbu.edu.hk/trsimage/hp/09016031.pdf
20. Wu, W. Rui, O. M. and Wu, C. (2012). Trade credit, cash holdings, and financial deepening: Evidence from a transitional economy. *Journal of banking & finance*, *36*(11), 2868-2883. https://doi.org/10.1016/j.jbankfin.2011.04.009

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