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The Effect of Institutional Ownership on Corporate Cash Holdings: Evidence from Egypt

Abstract

This research aims to investigate the impact of institutional ownership on corporate cash holdings in the Egyptian context. The research uses data from a sample of 46 listed companies on the Egyptian Stock Exchange, especially (EGX 50) from 12 main sectors (real estate, food and beverage, construction material, chemicals, tourism, basic resources, personal and household, health care, media, oil and gas, travel, and capital goods) for eight years' period from 2014 to 2021. The study uses a panel linear regression model to test the research hypothesis. The findings revealed that institutional ownership seemed to have a significant positive influence on corporate cash holdings. In other words, firms with greater institutional investors are likely to hold more cash.

Keywords: Institutional Ownership, Corporate Cash Holdings, Ownership Structure, Investment Opportunities, Egypt

تأثير الملكية المؤسسية على الاحتفاظ بالنقدية: دليل من مصر

يهدف هذا البحث إلى دراسة أثر الملكية المؤسسية على الاحتفاظ بالنقدية في السوق المصري. وقد استخدم البحث بيانات عينة من 46 شركة مدرجة في البورصة المصرية وخاصة (EGX50) من خلال 12 قطاعاً رئيسياً (العقارات، الأغذية والمشروبات، التشييد ومواد البناء، الكيماويات، السياحة والترفيه، الموارد الأساسية، المنتجات الشخصية والمنزلية، الرعاية الصحية والادوية، الإعلام، النفط والغاز، السفر، والسلع الرأسمالية) لفترة 8 سنوات من 2014 إلى 2021. وقد استخدمت الدراسة نموذج الانحدار لاختبار فرضية البحث حيث كشفت نتائج الدراسة أن الملكية المؤسسية لها تأثير معنوي طردي على الاحتفاظ بالنقدية لدى الشركات. بعبارة أخرى، تحتفظ الشركات ذات النسبة العالية من المستثمرين المؤسسيين بمزيد من النقدية.

الكلمات المفتاحية: الملكية المؤسسية؛ الاحتفاظ بالنقدية؛ هيكل الملكية؛ الفرص الاستثمارية؛ مصر

1. Introduction

Cash is one of the most important, liquid current assets and the least profit asset (Safdar, 2017). It is also considered the riskiest account from the accounting perspective since it is associated with large number of accounting transactions as well as its ease of misuse compared to other assets. Therefore, it is important for many stakeholders such as shareholders, creditors, management, and auditors to assess the company's ability to fulfill its several obligations, distribute dividends, and face the unexpected fluctuations' risks and take advantage of investment opportunities (Bick et al., 2018).

Companies hold cash to achieve many benefits such as obtaining external financing (Elsayed, 2018), hedging against unexpected fluctuations' risks, taking advantage of additional investment opportunities and generating unexpected profits (Sheikh and Khan, 2015). In contrast, there are costs associated with holding cash which are represented in the opportunity cost that implies the expected return to be obtained from investing the cash in high-profit projects (Sher, 2014) and thus, the optimal cash holdings level is determined according to the static trade-off theory by balancing between the costs and benefits associated with cash holdings (Dittmar et al., 2003).

Besides, cash is also important in making operational, investment and financial decisions. It enables the sustainability of operations and gives firms the necessary funds to make better investment decisions when they are financially distressed (Soliman, 2019; Al Amri et al., 2015). However, agency conflicts between managers and shareholders affect the decisions regarding the use of the firm's resources and can be the source of significant inefficiencies (Nguyen and Rahman, 2020; Harford et al., 2008).

Additionally, the agency theory identifies the conflict of interests' relationship between management and shareholders which produce agency problem, where management aims to take advantage from the cash holdings to achieve their own interests at the expense of shareholders (Jensen and Meckling, 1976). Besides, management may invest in projects that enhance their control over the company

resources and accordingly accomplish their interests that are represented in the increase of rewards through holding more cash instead of investing in projects with positive cash flows that benefit shareholders. According to this theory, agency problem is considered one of the determinants of cash holdings level (Azinfar and Shiraseb, 2016; Dittmar et al., 2003).

According to (Vo, 2018) study, cash holdings level refers to the ratio of cash and cash equivalents to total assets or net assets. Moreover, as per the study of (Nguyen, 2005), firms' decision to hold cash has come to the fore in recent years as a result of the recent global financial crisis and its influence on the companies' capability to gain external funds and thus, many worldwide companies seemed to have an increase in their cash holdings level according to the following studies. The study of (Dittmar and Mahrt-Smith, 2007) stated that cash holdings level in the American companies increased from 5% in 1990 to 13% in 2003, while the study of (Seifert and Gonenc, 2018) indicated that the level of cash holdings for a sample of international companies including Ireland, Hong Kong, China, Indonesia, and Japan reached (27.6%, 25.1%, 24.6%, 22%, 20.4%, respectively) from 2002 to 2013. However, the Egyptian listed companies reported that cash holdings level reached 10.97% for the period 2012 to 2016 (El-Zayat, 2018).

Furthermore, ownership structure types were found to have a significant role in defining the level of cash holdings (Azinfar and Shiraseb, 2016), specifically institutional ownership which has been considered as a crucial determinant of cash holdings level (Mohd et al., 2015). Additionally, as for the studies of (Phaiboonvessawat, 2019; Ward et al., 2018), firms may invest their cash holdings inefficiently as a result of the conflict of interests between shareholders and managers that drives the academicians' need to study whether and to what extent the monitoring role of institutional ownership may influence cash holdings value.

Therefore, this research aims to investigate and analyze the impact of institutional ownership on corporate cash holdings among the Egyptian stock market. In other words, the researchers examine how institutional ownership can

influence the level of cash holdings among non-financial Egyptian listed companies from 2014 to 2021.

The rest of this research is organized as follows: Section 2 presents the literature review which demonstrates previous studies that assessed the association between institutional ownership and corporate cash holdings and developing the study hypothesis. Section 3 includes the research design and methodology, the study sample and data collection. Section 4 presents the hypothesis testing and empirical results and finally, Section 5 provides the study conclusion.

2. Literature Review and Hypothesis Development

Institutional ownership has acquired the attention of financial analysts and researchers recently (Brown et al., 2011). As stated by (Abdelmoniem, 2021) study, institutional ownership refers to the percentage of company shares held by large institutions (e.g., banks, insurance companies, investment funds, and pension funds). Above and beyond, contemporary researches highlighted the importance of analyzing institutional ownership impact on corporate cash holdings as presented by the following studies that investigated how institutional ownership affects corporate cash holdings.

The study of (Brown et al., 2011) evaluated how institutional ownership affects firms' tendency to hold cash for a huge sample of all United States firms in the merged Compustat/CRSP Fundamental Annual database from 1981 to 2007. The study found that short-term or long-term institutional ownership is the key driver of the relationship nature in which higher short-term institutions ownership results in a larger cash holding because of the regular trading of the institutions for the sake of short-term gains. While higher long-term institutions ownership results in fewer cash holdings because of the irregular trading of the institutions.

While, the study of (Khalil et al., 2016) attempted to examine the influence of managerial ownership, institutional ownership, annual profit and leverage ratios on cash holdings. The analysis was carried out on a sample of 15 listed companies

on Pakistan stock exchange that are selected from the cement sector among the period from 2007 to 2015. As stated by the study results, there is a significant negative influence of institutional ownership on cash holdings which means that if institutional ownership goes up, the cash holdings level will drop as a result of institutional investors increase and vice versa.

In contrast, the study of (Azinfar and Shiraseb, 2016) explored the ownership structure impact on the value of cash holdings. The empirical analysis was conducted on a sample of 96 listed companies on Tehran Stock Exchange over a ten-years period from 2004 to 2013. The study included four types of ownership structure to be evaluated (institutional ownership, managerial ownership, corporate ownership, and foreign ownership). According to the statistical results of the study, it was concluded that institutional ownership has a significant positive impact on cash holdings value.

As well as, the study of (Al-Najjar and Clark, 2017) evaluated how internal and external ownership structure affect corporate cash holdings decisions among 430 listed firms in the MENA countries that included (Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Tunisia, and UAE) for the period from 2000 to 2009. The study findings revealed that institutional ownership is positively affecting corporate cash holdings. Furthermore, the study indicated that institutional shareholders perceived to be self-centred and seeking to maximize their own private gains.

On the contrary, the study of (Elsayed, 2018) assessed the influence of ownership structure types on cash holdings level by considering institutional ownership to evaluate ownership structure. The analysis was applied on a sample of 61 Egyptian listed companies on the Egyptian Stock Exchange over the period from 2013 to 2018. As for the study results, it was found that institutional ownership has a significant negative influence on cash holdings level. Consequently, the level of cash holdings is driven by institutional ownership which is recognized as a factor that can be employed to determine cash holdings level.

However, the study of (Im et al., 2018) explored how corporate cash holdings are affected by institutional ownership among a large sample of 7,138 listed firms in the United States stock exchange over the period that starts from 1980 to 2015. Based on the study results, institutional ownership showed a significant positive impact on corporate cash holdings which means that the higher the institutional ownership the higher the value of cash holdings. In addition to this, institutional ownership promotes corporate control and increases sensitivity to investment opportunities.

Along the same line, the study of (Phaiboonvessawat, 2019) examined the influence of institutional ownership, board governance mechanisms and firm characteristics on the firm policy of cash holdings for a sample of 366 listed firms on the Stock Exchange of Thailand from 2012 to 2016. The study concluded that institutional ownership has a significant positive influence on firms' cash holdings, this is because of the better corporate authority and effective control management of these firms. Therefore, managers are allowed by shareholders to hold more cash and meet operations needs or to benefit from investment opportunities.

Unlike, the study of (Elsawah, 2020) aimed to determine and test the impact of institutional ownership on the level of cash holdings. The study was carried out on a sample of 64 listed companies on the Egyptian Stock Exchange over the period from 2012 to 2017. The statistical results of the study showed a significant negative relationship between institutional ownership and the level of cash holdings while on the other hand, the additional tests revealed that active institutional ownership has a significant negative impact on cash holdings, but inactive institutional ownership seemed to have a significant positive impact on cash holdings.

Whereas, the study of (Nguyen and Rahman, 2020) evaluated the association between corporate governance and cash holdings for a large sample of 16,451 Japanese firms from 2003 to 2012 using institutional ownership as the main corporate governance variable. The findings provided evidence consistent with

United States results that higher cash holding balances are influenced by better governance. In other words, better governed firms categorized by higher institutional ownership are associated with higher cash holdings. The reason behind this is that effective monitoring reduces managers propensity to overinvest and, consequently, persuades shareholders to let firms hold more cash.

However, the study of (Afifa et al., 2021) attempted to explore the direct and mediated correlation of ownership structure, cash holdings and firm value. The study included (managerial, concentrated, institutional, and foreign ownership) to measure ownership structure. The study was applied on a sample of 20 Jordan listed companies during the period from 2009 to 2018. The empirical results showed that institutional ownership has no impact on the value of cash holdings and accordingly, any change in the level of cash holdings is not because of a change in institutional ownership.

In the same context, the study of (Ilyas et al., 2021) assessed the role of foreign and domestic institutional investors on the excess cash holdings value in Pakistan, where the institutional ownership is widely seen as unfriendly to outside shareholders as a result of family control. The study was conducted on a sample of 220 listed firms on the Pakistan Stock Exchange (PSX) from 2007 to 2018. Regarding the study results, it was found that domestic institutional investors do not influence the excess cash holdings value, and thus, it has no role in determining the excess cash holdings value.

While, the study of (Qian, 2021) aimed to determine the amount of cash holdings and the role of corporate governance in controlling the possible agency problem. This study shed the light on the relationship between cash holdings and several variables including institutional ownership in Latin American market. The study was carried out on a huge sample of 652 public traded companies from six Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico, and Peru.). The analysis showed a statistically significant positive impact of institutional ownership on cash holdings. Therefore, companies with higher

institutional ownership hold more cash than those with less institutional ownership.

In contrast, the study of (Odediyah et al., 2021) investigated the role of corporate governance on cash holdings, precisely by examining the association between institutional ownership, board independence and cash holdings. The study was applied on a sample of 43 listed firms on the Ghana and Kenya Stock Exchanges. The empirical findings revealed that institutional ownership has an insignificant association with cash holdings. In other words, the study indicated that institutional investors in emerging economies improve the board's ability to monitor managerial opportunism, therefore, reducing the level of cash holdings.

Whereas, the study of (Alghadi et al., 2021) analyzed the ownership structure relationship with cash holdings level in Saudi Arabia for 100 listed companies at Saudi Stock Exchange (TADAWUL) for the period from 2011 to 2019. The study involved several types of ownership structure to be examined including institutional ownership to assess ownership structure. The findings showed that institutional ownership seemed to have no direct impact on cash holdings for the selected sample. Therefore, the study indicated that institutional ownership is not an indicator for cash holdings.

Also, the study of (Darma et al., 2021) attempted to examine how ownership structure influences the value of cash holdings empirically. The study used institutional ownership to assess ownership structure for a sample of 77 listed firms on the Indonesian Stock Exchange from 2015 to 2019. The study extends the limited prior research on the association between ownership structure and cash holdings in the studied sample. According to the study results, institutional ownership does not influence the value of cash holdings. In other words, it is not a factor in determining the value of cash holdings.

Based on the above demonstration of prior studies that analyzed the association between institutional ownership and corporate cash holdings, the researchers predict the existence of a relation between the two variables as well as confirming the presence of controversial results concerning the nature of the impact of institutional ownership on corporate cash holdings among previous studies which the researchers seek to examine in the Egyptian Stock market by testing the study hypothesis that is developed as follows:

Ha: Institutional ownership has a significant effect on corporate cash holdings.

3. Research Design and Methodology

3.1 Research Conceptual Framework

The following figure (1) presents the research conceptual framework that shows the relation between independent and dependent variables:

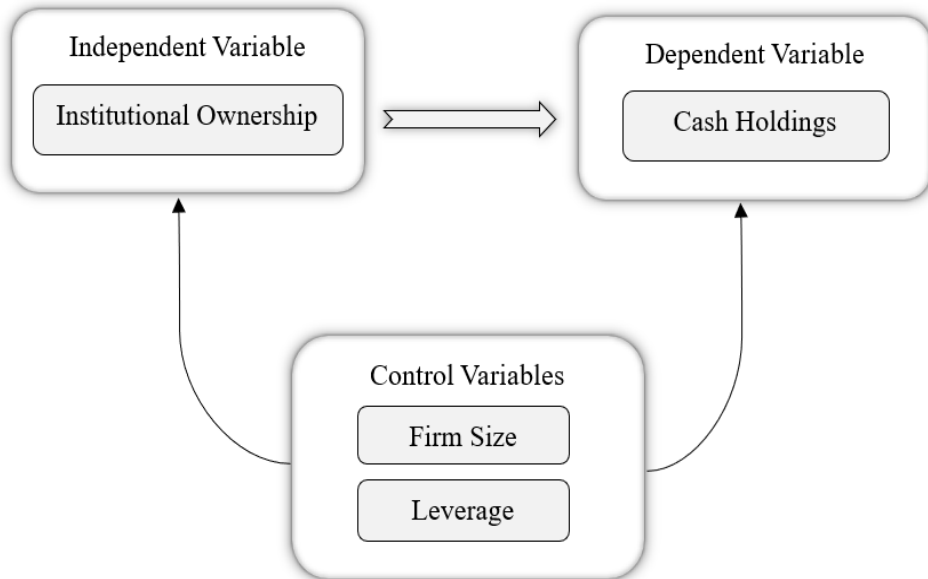


Figure 1: The relations between independent and dependent variables

Source: prepared by the researchers

3.2 Data Collection and Study Sample

The population comprises of the most active 50 Egyptian listed companies on the Egyptian Stock Exchange (EGX), especially **EGX₅₀** during the study period from 2014 to 2021. The initial sample covered 50 listed companies on EGX; however, the researchers excluded 4 companies due to missing data. Therefore, the final sample includes 46 companies for eight years' period with a total of 368 observations. The sample involved 12 main sectors (real estate, food and beverage, construction material, chemicals, tourism, basic resources, personal and household, health care, media, oil and gas, travel, and capital goods). The research excludes banks, insurance companies and companies in the financial service sector as they have special nature that governs their institutions as well as they are subject to some standards and legal requirements related to cash holdings level.

The data were obtained using annual reports such as board of directors' reports, corporate governance reports, and financial statements that are published on companies' websites, Investing website (www.investing.com), and the Egyptian Stock Exchange website (www.egx.com.eg).

3.3 Research Model

A panel regression model will be most applicable to represent the linear relationship between the independent and dependent variables as represented in the following equation:

$$\widehat{CASH}_{it} = \beta_0 + \beta_1 INSOWN_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \epsilon_{it}$$

Where:

- $CASH_{it}$: refers to cash and cash equivalent to total assets of company i in year t .
- β_0 : refers to the estimated constant term.
- $INSOWN_{it}$: refers to the percentage of shares held by institutional investors to total number of shares of company i in year t .

- $SIZE_{it}$: refers to the natural logarithm of total assets of company i in year t .
- LEV_{it} : refers to the percentage of total liabilities to total assets of company i in year t .
- ϵ_{it} : refers to the estimated random error of company i in year t .
- i : refers to the company.
- t : refers to the year.

3.4 Variables Measurement

Table 1: shows the variables measurement and their abbreviation as follows:

Table 1: Variables Measurement

Variables	Abbreviation	Measurement	References
Independent			
Institutional Ownership	INSOWN	Percentage of shares held by institutional investors to total number of firms' shares	(Alghadi et al., 2021) (Alkordi et al., 2017)
Dependent			
Cash Holdings	CASH	Cash and Cash equivalents to total assets	(Shehata and Rashed, 2021) (Al Amri et al., 2015)
Control			
Firm Size	SIZE	The natural logarithm of total assets	(Asiriwuwa et al., 2019) (Saleem Salem Alzoubi, 2016)
Leverage	LEV	Percentage of total liabilities to total assets	(Soliman, 2019) (Mohd et al., 2015)

Source: prepared by the researchers

3.5 Method of Data Analysis

The analysis of the data obtained from the financial statements will be carried out first with the use of a mathematical formula for the measurement of institutional ownership and corporate cash holdings, and then a panel regression model will be adopted to test the study hypothesis using the R- software to analyze the impact of institutional ownership on corporate cash holdings as per the data in board of directors' report, corporate governance report, and financial statements.

4. Empirical analysis and results discussion

4.1 Descriptive Analysis

The main study variables will be analyzed in order to determine measures of location such as mean, maximum and minimum values, and their measures of dispersion, standard deviation and coefficient of variation for each variable as presented in the following table (2):

Table 2: Main Variables Descriptive Analysis

Variable	N	Minimum	Maximum	Mean	Standard Deviation	Coefficient of Variation
Institutional Ownership	368	0.0000	0.7857	0.2242	0.0229	0.102141
Cash Holdings	368	0.0001	43.1883	0.2655	0.0510	0.192247
Firm Size	368	17.2513	23.8281	21.2639	0.2598	0.012217
Leverage	368	0.0008	30.1196	0.5450	0.0751	0.137881

Source: prepared by the researchers from R-software output

Table 2: presents that

- All study variables have 368 observations which mean that there is no missing data.
- The independent variable institutional ownership has a minimum value of zero and maximum value of 0.7857 with an arithmetic mean of 0.2242, while its standard deviation equals 0.0229 which is less than 1 resulting a low coefficient of variation of 10.2141% that indicates a low level of values dispersion around the arithmetic mean.
- The dependent variable cash holdings have a minimum value of 0.0001 and maximum value of 43.1883 with an arithmetic mean of 0.2655, while its standard deviation equals 0.0510 which is less than 1 causing a low coefficient of variation of 19.2247% which implies a low level of values dispersion around the arithmetic mean.
- The control variable firm size has a minimum value of 17.2513 and maximum value of 23.8281 with an arithmetic mean of 21.2639, while its standard deviation equals 0.2598 which is less than 1 resulting a low coefficient of variation of 1.2217% which reveals a low level of values dispersion around the arithmetic mean.
- The control variable leverage has a minimum value of 0.0008 and maximum value of 30.1196 with an arithmetic mean of 0.5450, while its standard deviation equals 0.0751 which is less than 1 causing a low coefficient of variation of 13.7881% which shows a low level of values dispersion around the arithmetic mean.

4.2 Correlation Matrix

Spearman correlation coefficient will be the most appropriate coefficient in determining the strength and direction of the relation between each two variables, then the correlation coefficient is tested by a t-test in which its null hypothesis states that correlation does not exist if the *p-value* is greater than 0.05.

Table 3: Spearman Correlation Coefficient Matrix

Variable	INSOWN	CASH	SIZE	LEV
INSOWN	1.00			
<i>P-value</i>	-			
CASH	0.38	1.00		
<i>P-value</i>	0.00	-		
SIZE	0.05	0.38	1.00	
<i>P-value</i>	0.33	0.03	-	
LEV	0.12	0.22	0.17	1.00
<i>P-value</i>	0.06	0.06	0.00	-

Source: prepared by the researchers from R-software output

From the correlation matrix table (3), it is concluded that:

- There is a significant and direct but not strong relation between institutional ownership and cash holdings with correlation value of 0.38 and *p-value* 0.00.
- There is a significant and direct but not strong relation between cash holdings and firm size with correlation value of 0.38 and *p-value* 0.03.
- There is a significant and direct but not strong relation between cash holdings and leverage with correlation value of 0.22 and *p-value* 0.06.

4.3 The Linear Panel Regression

Since normality is not a requirement for using a panel regression model to analyse the effect of an independent variable on a dependent variable (Zulfikar and STp, 2018; Wooldridge, 2010; Baltagi, 2008). Therefore, the researchers used the panel linear regression model to test the study hypothesis even after finding that the data is not normally distributed. The research hypothesis states that: Institutional ownership has a significant effect on corporate cash holdings.

▪ **Model Diagnostics**

The following table (4) presents the diagnostics of the three-panel models (pooled panel, fixed effect panel, and random effect panel) to determine the most appropriate model in forecasting the cash holdings.

Table 4: The Pooled Panel Model Diagnostics for the Research Hypothesis

Test	Purpose	Test-statistic result	P-value	Fitted panel model
F-test	Comparing between Pooled panel and Fixed Effect Panel	F = 9.6986	0.34664105	Pooled Panel
Breusch-Pagan test	Comparing between Pooled panel and Random Effect Panel	LM = 9.747	0.80612163	Pooled Panel

Source: prepared by the researchers depending on R- software output

From the above table (4), it seemed that the pooled linear panel model is the most suitable model to explain the relation between the independent, dependent, and control variables.

▪ **Pooled Panel:**

The following table presents the pooled linear panel regression model for institutional ownership as an independent variable and cash holdings as a dependent variable as well as the control variables to obtain the most fitted linear relation that can forecast corporate cash holdings on the long run.

Table 5: The Pooled Panel Model of Institutional Ownership on Cash Holdings

	Coefficient	t-ratio	p-value	Significance
Constant	0.709781	2.215	0.0274	Significant
Institutional Ownership	0.223983	2.716	0.0069	Significant
Firm Size	0.0593339	3.946	<0.0001	Significant
Leverage	1.40763	129.2	<0.0001	Significant

Source: prepared by the researchers depending on R- software output

From the above table (5), the researchers explained that there is a significant impact of institutional ownership on corporate cash holdings.

From table (5), it is concluded that:

- Institutional ownership, firm size, and leverage have a direct and significant impact on corporate cash holdings.
- The overall equation that is used in forecasting the corporate cash holdings is developed as follows:

$$\widehat{CASH}_{it} = 0.709781 + 0.223983 \text{ INSOWN}_{it} + 0.0593339 \text{ SIZE}_{it} + 1.40763 \text{ LEV}_{it}$$

▪ **Heteroscedasticity Test for Residuals Stability:**

The regression models and the ordinary least square (OLS) method are based on several assumptions including the constancy of homoscedasticity, in which the mean should be equal to zero and if the Heteroscedasticity variation is used, some methods are used to overcome this problem, such as the White test. Moreover, the null hypothesis states that the model has a problem of random error instability if the p-value is less than 0.05.

Table 6: Heteroscedasticity Test

Overall test of Heteroscedasticity	Chi-square	P-value
	59.8194	0.45251009

Source: prepared by the researchers depending on R- software output

The above table (6) showed that the chi-squared test of value 59.8194 has a p-value of 0.45251009 which implies accepting the alternative hypothesis that the study model does not suffer from random error instability problem.

▪ **Ramsey Reset Test**

This test is used to determine whether the model contains all the appropriate variables and excludes the irrelevant variables to ensure that the model estimated coefficients are not biased. This is carried out through the Ramsey RESET Test. The decision criterion is to accept the null hypothesis which states that the study model includes all the appropriate variables if the p-value is greater than 0.05.

Table 7: Ramsey Reset Test

Ramsey RESET overall Test	F-test	P-value
	40.35	0.2272186

Source: prepared by the researchers depending on R- software output

The above table (7) showed that P-value of the F- test is greater than 0.05 which means that the study model does not contain any inappropriate variables included in the model.

▪ **Variance Inflation Factor (VIF) Test**

The following table (8) illustrates the variable inflation factor in which its minimum possible value equals to one and the values greater than ten indicate a collinearity problem.

Table 8: VIF of the Independent and Control Variables

Variable	VIF
Institutional Ownership	1.023
Firm Size	1.030
Leverage	1.044

Source: prepared by the researchers depending on R- software output

From the above table (8), it is concluded that there is no variable that suffers from multi-collinearity as the VIF values didn't exceed ten.

▪ **Normality of Residuals:**

The following table (9) presents the normal distribution of residuals as the model residuals must follow the normal distribution in the long run with mean equals zero and variance equals one.

Table 9: Normality of Residuals

Chi-square test of residuals Normality	Chi-square test	<i>P-value</i>
	2.46014	0.292273

Source: prepared by the researchers depending on R- software output

The above table (9) revealed that the p-value of chi-square test of normality equals 0.292273 that is greater than 0.05 which means that residuals are normally distributed.

Summary:

From correlation matrix table (3), it is determined that:

- Spearman correlation coefficient is the most appropriate coefficient to determine the linear relation between the independent, dependent, and control variables as the study variables are not normally distributed.

- There is a significant, direct and weak relation between (institutional Ownership, firm size, and leverage) and cash holdings with correlation value of 0.38, 0.38, and 0.22 respectively. Besides, all variables have *p-value* less than 0.05.

From the linear Panel Regression model, it is concluded that:

- The pooled linear panel regression model is the most appropriate model in determining the impact of institutional ownership on corporate cash holdings in the presence of control variables with an adjusted R-squared of 97.9703%.
- Furthermore, the model coefficients showed a positive impact of institutional ownership, firm size, and leverage on corporate cash holdings.

Therefore, the researchers will accept the main study hypothesis as follows:

Institutional ownership has a significant effect on corporate cash holdings.

5. Conclusion

This research examined the influence of institutional ownership on corporate cash holdings. The researchers attempted to provide evidence from the Egyptian listed companies on the stock exchange. The study was carried out on a sample of 46 companies from 12 main sectors (real estate, food and beverage, construction material, chemicals, tourism, basic resources, personal and household, health care, media, oil and gas, travel, and capital goods) for the most active companies in the Egyptian stock exchange during the study period from 2014 to 2021.

The empirical findings indicated that institutional ownership has a significant positive effect on corporate cash holdings among the selected sample that are consistent with the results of (Qian, 2021; Nguyen and Rahman, 2020; Phaiboonvessawat, 2019; Im et al., 2018; Al-Najjar and Clark, 2017; Azinfar and Shiraseb, 2016) studies as they agreed that institutional ownership is positively correlated with cash holdings. Whereas, the results of (Elsawah, 2020; Elsayed, 2018; Khalil et al., 2016) studies contradicted our findings as they indicated that institutional ownership is negatively affecting corporate cash holdings. However,

the results of (Brown et al., 2011) study revealed that the nature of the relationship between institutional ownership and corporate cash holdings depends mainly on whether the firm has short-term or long-term institutional ownership, and accordingly, the nature of the relationship can be determined. In contrast, the studies of (Darma et al.; Alghadi et al.; Odediyah et al.; Ilyas et al.; Afifa et al., 2021) explored that institutional ownership and corporate cash holdings are insignificantly related.

The researchers explained that firms with high percentage of institutional ownership seemed to have better governance as they can improve corporate governance quality, therefore, the better corporate authority and effective monitoring mitigate managers' propensity to overinvest and accordingly, they are permitted by shareholders to hold more cash in order to meet operational needs or to take advantage from investment opportunities as institutional investors are assured of their ability to control how managers will spend their cash.

6. Study Limitations and Future Researches

6.1 The research has several limitations that could be presented as follows:

- The research focuses only on one type of ownership structure which is institutional ownership due to its popularity in the Egyptian market and doesn't include other types of ownership structure such as: managerial ownership, family ownership, foreign ownership, governmental ownership, controlling minority structure, and ownership dispersion.
- The research discusses only one corporate governance mechanism which is the ownership structure and doesn't include other corporate governance mechanisms such as: board composition (board size, inside directors, and outside directors), board committees (audit, stakeholders relationship committee, and risk management committee), chief executive officer (CEO) duality/separation, board meetings.

- The research includes only one important determinant of cash holdings (ownership structure) and doesn't include other determinants such as: firm characteristics (profitability, dividend payments, liquidity, net working capital, and cash flows) and accounting conservatism.
- The research is limited to a sample of listed companies on the Egyptian Stock Exchange during the period from 2014 to 2021 to serve the research objectives.
- The study sample includes listed companies on the Egyptian Stock Exchange other than banks, insurance companies and companies in the financial service sector as they have special nature that governs their institutions as well as they are subject to some standards and legal requirements related to cash holdings level.

6.2 Future researches

Because every research paves the way of future researches; therefore, the researchers suggested the following areas to be investigated in future researches:

- The Effect of Transient Institutional Ownership and Cost of Debts on Corporate Cash Holdings: An Empirical Study
- The Impact of Governmental Ownership on Cash Holdings: Evidence from Egypt
- The Relation Between Cash Holdings Value and Dividend Payment Policies: A Comparative Study Between Family Vs Non- Family Firms

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