

The Effect of Cash Holdings on Non-Audit Services Fees "An Empirical Study on the Industrial Public Shareholding Companies in Emerging Countries"

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Abstract The aim of this study was to investigate the effect of cash holdings on Non- Audit services Fees in Jordanian public Shareholding industrial companies, the study used the relational descriptive approach in order to collect data and analyse it quantitatively, aiming to describe independent and dependent variables and to reveal predictive correlations among them, the study used the arithmetic averages, the standard deviations, and the log linear regression test for each of the study variables. The study was applied to a sample consisting of (44) companies listed on the Amman stock Exchange in the industrial sector during the period (2022-2024). The study reached a set of results, namely, that cash holdings clearly affect Management consulting services, as for tax services, the study showed that there is no relationship between cash holdings and tax services, this may be due to the fact that tax services do not predict cash holdings in Jordanian public Shareholding industrial Companies. The most important Recommendations, Determine the amount of cash holdings that companies must maintain and impose more control on companies to reduce the possibility of fraud and misrepresentation in the financial statements, and the necessity of working to determine the amount of non-Audit fees according to objective principles and obliging companies to disclose non-audit services in the annual reports.

Keywords: Cash Holdings, Management Consulting, Non-Audit services Fees, Tax Services.

1 Introduction

According to the international standard ISA200), the provision of non-audit services to clients by auditing firms may harm the independence of the auditor (Alexander and Hay, 2013; Wines, 2012; Zerni, 2012), but providing non-audit services for accounts increases the economic bond between the auditor and the client. There is a widespread belief that auditors may sacrifice independence in order to retain clients who pay large amounts of non-audit fees (DeFond, et al. 2002). Non-audit services are an important public policy issue in many countries, and stricter requirements are imposed. under legislation in Europe (Zhang, et al. 2016).

Cash is not only one of the most liquid assets, but it is also the most profitable, so that the lack of cash affects the production and operation of an enterprise, and the increase in cash reduces the profit level of the enterprise, and this raises a very important question: how much cash should the company keep? This is what determines the best amount of cash holding, as many firms have very large cash balances as a percentage of their total assets (Wang, et al. 2019).

Specifically, firms operating in a weak institutional system tend to hold more cash than their counterparts in developed and developed financial systems. There are two main benefits of holding cash assets. First, the firm saves transaction costs for raising funds and does not have to liquidate assets to make payments. Secondly, the company can use cash assets to finance its activities and investments if other sources of financing are not available or are too expensive (Joshi, 2019).

On the other hand, cash holdings represent a source of agency costs, and auditing is one of the important mechanism's companies use to control agency costs. Based on prior evidence of the link between cash holdings and audit fees, we can expect that agency costs arising from cash holdings will affect the pricing of audit fees (Benjamin, et al. 2015), and in this context we examine a neglected but highly significant relationship between cash holdings and fees for non-audit services.

2 Cash Holding

The study of cash goes back to 1936 when Keynes mentioned three reasons for keeping cash: the motive behind the transaction, the precautionary motive, and the speculative motive. The optimum level of cash to be retained by the firm (Keynes, 1936). The monetary behavior of companies received a great deal of attention in the financial literature after the contribution of Modigliani & Miller to their study in (1958), as well as in the study of Miller and Orr in (1966), and (Karabarbounis and Neiman, 2012) indicated that cash holdings have always played an important role in businesses, but it has shown a significant upward trend in many if not most developed and Asian economies over the past two decades. The strategy of cash holdings is a decisive factor for the present and future of companies, and establishing a balance between cash needs and available cash is one of the most important factors in the economic strength of companies (Bolo, et al. 2012). This stems from the fact that one of the foremost benchmarks for assessing profit quality lies in the ability of these earnings to generate cash (Abdallah, et al. 2025)

Previous studies also indicate that the level of cash retention is important in the operation of companies, in addition to that companies must keep an appropriate amount of cash to carry out daily activities, because some companies, especially those with a low cash level, cannot face all emergency situations without an elaborate plan that guarantees the capacity The company has adequate cash to meet all current and future conditions (Nhan, 2018).

According to a field visit conducted by the researcher to both the Jordanian Chamber of Commerce and the Jordanian Ministry of Industry and Trade, there is no specific formula to know the amount of cash holdings that companies must keep, so that the amount of cash holdings appears in the financial statements as they are disclosed by these companies. This does not cancel out The need for companies to invest this cash and make use of it in the best investment opportunities so that these holdings are not a victim of negligence and a weakness for companies by neglecting them and not using them properly.

Cash is considered a “call deposit currency” (IASB, 2018). In addition, cash is considered one of the most liquid assets, and it is the standard medium of exchange and the basis for measurement and accounting for all other items. Companies generally classify cash as a current asset, and cash consists of available currencies and funds deposited in the bank. On the other hand, cash equivalents are short-term and highly liquid investments. It is easily convertible into known amounts of money and is so close to its maturity that it presents little risk of changes in value due to changes in interest rates for example (Kieso, et al. 2018). Based on the foregoing, the researcher believes that cash and cash equivalents can be considered as the balances that are due within a period of three months and include cash on hand and balances with banks and banking institutions that are due within three months. For the purposes of the consolidated statement of cash flows, cash and its equivalent include cash on hand and at Banks and short-term deposits with maturities of three months or less after deducting bank credits and retention balances.

3 Non Audit Services

It is well known that in most countries the financial statements of a listed company need to be audited by an auditor independent of the auditing firm as required by law. An audited financial statement is important for stakeholders such as shareholders, creditors, governments, employees, and others to validate the financial health of the company (Ganesan, et al. al. 2019).

The Legal information institute has defined fees for non-audit services as “fees for any professional services provided by a qualified public accountant during the period of participation in the audit that are not related to the audit of the financial statements of the organization”.

The last two decades witnessed a wide development in the services provided by audit firms to include many non-audit services (NAS). This was due to the expansion and complexity of the business environment, globalization, the proliferation of multinational companies, and information technology improvements (Khasharmeh and Desoky, 2018).

In October 2010, the European Commission (EC) issued the Green Paper “Audit Policy: Lessons from the Crisis”, to start a discussion on potentially necessary reform measures on the role and scope of statutory audit as well as on the audit market, its main objective being to enhance the credibility of audited financial statements In order to restore and enhance market stability as well as confidence after the financial crisis surrounding the bankruptcy of Lehman Brothers in September 2008 (Schönberger, 2018).

Within this study, the fees for non-audit services are of interest, specifically the fees charged by the auditor for management consulting services, tax services, and economic feasibility study services, and they will be clarified as follows:

3.1. Management consulting services

Consulting is gradually becoming a more standard service and price is the main factor in the decision to contract with clients, so consulting firms are constantly striving to reduce costs to provide a competitive pricing advantage, however, consulting services are one type of multiple services (Momparker, et al. 2015).

Obtaining large fees for non-audit services from an accredited client, regardless of the nature of these services provided, whether advisory or administrative, may restrict the independence of the auditor simply because the risk of losing large additional revenues makes the auditor hesitant, which creates a potential conflict of interest (Meckfessel and Sellers , 2017).

Although the Sarbanes-Oxley Act 404/2002 and the Securities and Exchange Commission (SEC) prohibit auditors from providing many advisory services to audit clients of public companies, some services are permitted, and firms are not prohibited. Auditing Providing advice to private and public companies as well as auditing clients (Arens, et al. 2016).

The fees that auditors receive for the services provided to clients may be due to many factors. Previous studies have discovered that client satisfaction changes across the four major public accounting firms and that many attributes of the quality of consulting services are related to client satisfaction, whether with the consulting firm or with the consulting team (Momparker, et al. 2015).

Managers hire consulting auditors to act as consultants on the project, consultants choose how much effort to put into the project so that the choice of effort affects the value of the project to managers, the consultant auditor has a strong incentive to collaborate with the manager by providing significant effort to drum up repeat business (Kowaleski, et al. 2017).

3.2. Tax services

Since different types of non-audit services may have different effects, previous studies have looked specifically at the provision of tax services by the auditor, in addition to the effects that are generally attributed to non-audit services. It was found that the tax services provided by the auditor have clear effects (Aschauer, 2018).

In 2011 the European Commission (EC) proposed mandatory rotation of audit firms after six or nine periods in the case of joint audits, and further restrictions on the provision of non-audit services to clients, such as a ban on tax services provided by auditors as a measure to improve audit independence and quality. European Commission, 2011.

The audit quality improves the perceptions of investors by imposing restrictions on the tax services provided by the auditor, while the rotation system does not show a significant effect on the perceived audit quality, and it is interesting that we find that the improvement of audit quality as seen by professional investors also depends on the rotation system (Aschauer, 2018)

The Institute of Certified Public Accountants and other professional accounting bodies have recognized that the application of tax audits by companies is to ensure that the income and tax liability declared by taxpayers in their tax returns are correct and in compliance with the Income Tax Act of 1967 (Hamzah, et al. 2019).

The most important basic indicators used by the tax authority in implementing the tax audit application are the characteristics of the company so that information about the characteristics of the company is collected by the tax authority through the submission of tax returns by taxpayers (Bozanic, et al. 2017).

The researcher believes that providing an audit of tax services is an important means to ensure that there are no cases of fraud or tax evasion, and to ensure the validity of the tax revenues that have been achieved.

With the increasing development in the concept of cash holdings in the Jordanian business environment and the large number of business organizations of the private sector in Jordan, led by industrial companies, the responsibility has increased on auditors to verify the nature of these holdings, which led to additional auditing procedures and thus increased fees required by auditors to verify The validity of the company's disclosures about these cash holdings and its commitment to management's assurances related to financial operations and account balances of cash accounts, including cash holdings.

It should be mentioned that the audit and non-audit services for cash holdings contribute to increasing the reliability of the financial statements of companies, especially to their investors and lenders who deal with them.

Based on the above, the problem of the study was to try to answer the following main question:

- Do cash holdings affect the fees of non-audit services in the Jordanian public shareholding industrial companies?

The following sub-questions branch out from it:

- Do cash holdings affect management consulting services in the Jordanian public shareholding industrial companies?
- Do cash holdings affect tax services in the Jordanian public shareholding industrial companies?

This study mainly aimed to find out the effect of cash holdings on the fees of non-audit services in the Jordanian public shareholding industrial companies, through the sub-objectives: Statement of the extent of the impact of cash holdings on management consulting services in the Jordanian public shareholding industrial companies. And Statement of the extent of the impact of cash holdings on tax services in the Jordanian public shareholding industrial companies.

4 Literature View and Hypothesis Development

In their study Benjamin, et al. (2015) aims to determine the impact of cash holdings on audit fees and to study how auditors respond in terms of audit fees to cash holdings, which has become a growing concern in American companies. The researchers used the descriptive approach and least squares regression (OLS). The study sample included public companies in the United States of America and audit fees data available in the audit database during the period (2000-2012). One of the most prominent results of the study is that cash holdings in companies with growth opportunities Low motivates auditors to raise audit fees. We also find that the relationship between audit fees and cash holdings differs depending on whether the company is financially restricted or not. Specifically, the researchers recommended studying the impact of cash holdings on audit fees worldwide and studying the impact of other dimensions of corporate governance companies. Mohammadi, el al. (2018) tried to determine the relationship between cash holdings, investment opportunities, financial constraints, and audit fees in Iran. A combined data regression model (Panel data and combined data regression) was used to analyze the study data. The study sample included all industrial companies listed on the Tehran Stock Exchange during the period (2008). -2015), one of the most important results of the study is the existence of a significant relationship between cash holdings and audit fees.

Carcello, et al. (2018) They determine the relationship between the independent auditor and the fair value by studying the non-audit fees and the impairment of goodwill, and testing whether the non-audit fees are related to the results of the decision to depreciate the value of goodwill. The logistic regression model was used on the financial statements of all companies. The study sample included: The financial data of all companies from the database of financial, statistical and market information on active and inactive companies around the world (compustat). There is a negative relationship between non-audit fees and auditor independence.

Lucas Mahieux.(2022 Develop a model that provides new insights into the consequences of providing non-audited services (NAS) by audit firms to audit clients. I am also investigating the combined effects of NAS and contingent audit fees (CAF) on audit quality. In the model, litigation costs and reputation do not provide sufficient incentives for auditors to undertake audit efforts. Thus, the client company's investors may allow auditors to provision the NAS due to the incentive effect. In fact, the prospect of providing a NAS on the condition that financial errors are discovered increases auditors' incentives for audit efforts. However, provision of a NAS also reduces the auditor's independence, which may reduce audit quality and thus make provision of a NAS by auditor's undesirable. My analysis thus reveals an interesting trade-off for regulators between positive incentive influence and reduced auditor independence. Removing current restrictions on CAF may offset the subsequent decline in audit quality while maintaining past incentives. Analytical too Generates several testable empirical predictions.

Based on the previous studies the authors and in order to achieve the objectives and problem of the study, the following main hypothesis has been put forward:

The main hypothesis: There is a statistically significant effect of cash holdings on the fees of non-audit services in the Jordanian public shareholding industrial companies. Through the main hypothesis, the researcher will test the following sub-hypotheses:

The first sub-hypothesis: There is a statistically significant effect of cash holdings on management consulting services in the Jordanian public shareholding industrial companies.

The second sub-hypothesis: There is a statistically significant effect of cash holdings on tax services in the Jordanian public shareholding industrial companies.

5 Procedure and Methodology

After defining the problem of the study, which is the statement of the effect of cash burns on the Jordanian public industrial companies, the data were collected in the appropriate mathematical links to answer the study's questions.

The study population means all the elements or companies and institutions that you choose to participate in the study and their research group related to the subject of the study in the study community, the Jordanian General Association and reports (56) companies issued by the Amman Financial Market (Securities Center, 2019). To achieve the objectives of the study and answer its questions, a set of appropriate statistical methods and treatments will be used through the Statistical Package for Social Sciences (SPSS 23) programs, including arithmetic averages, standard deviations, correlation coefficient, and log linear regression.

6 Measuring the study variables

To measure the study variables and test its hypotheses, the following form was used:

$$Y_{it} = \beta_0 + \sum \beta_k X_i + \varepsilon_i$$

Y_{it} represents the dependent variables

β_0 is the intercept

β_k represents the coefficients of the X_i variables

X_i represents the explanatory independent variables

i = # of years

ε = error term

$$NonASSSERV_i = \beta_0 i + \sum \beta_k CashHold_i + \varepsilon_i$$

$$ConsultSER_i = \beta_0 i + \beta_1 CashandEQUIV_i + \varepsilon_i$$

$$TAXSER_i = \beta_0 i + \beta_1 CashandEQUIV_i + \varepsilon_i$$

$$FEASIBLSER_i = \beta_0 i + \beta_1 CashandEQUIV_i + \varepsilon_i$$

measurement method	Study variables
CH = (Cash _{i,t} + Cash Equivalent _{i,t}) / Ai,t measured through Cash and cash equivalents	The independent variable: cash holdings
1. The fee ratio (non-audit services fees divided by total fees) 2. The natural log of the sum of 1 + non-audit fees	Dependent variables: fees for non-audit services 1- Administrative consulting services 2-Tax services

Table 1. Measurements Methods for Study Variables.

7 Results

This part deals with a presentation of the results of the study, which aimed to reveal the impact of cash holdings on fees for non-audited services, “a field study on industrial companies listed in the Amman Financial Market.” The following is a presentation of the results of the study according to its questions

Not disclosed			Disclosed			dependent variable	The independent variable (cash holdings)
standard deviation	SMA	number	standard deviation	SMA	number		
14488288.42	4705554.01	88	24991590.51	7742667.09	44	Non-audit services fees	

Table 2. Arithmetic means and standard deviations of cash accounts on fees for non-audit services in Jordanian public industrial companies

It is noted from the above table that the arithmetic mean of the variable of cash holdings of the Jordanian public shareholding industrial companies that disclosed the fees for non-audit services amounting to (44) companies amounted to (7742667.09) with a standard deviation of (24991590.51), while the arithmetic mean of the variable of cash holdings of the industrial public shareholding companies was Jordanian companies that did not disclose the fees for non-audit services amounting to (88) companies (4705554.01) with a standard deviation (14488288.42), and in order to reveal the possibility of the variable being affected by the fees for non-audit services by cash holdings in the Jordanian industrial public shareholding companies, logarithmic regression analysis was used, Which are illustrated by the two tables(3+4)

Statistical significance	F value	Standard error of estimation	Square corrected correlation coefficient	Correlation coefficient square (explained variance)	correlation coefficient R	Sample
0.255	1.308	0.473	0.002	0.010	0.100	1

Statistically significant at the level of significance ($\alpha = 0.05$)*

Statistically significant at the significance level ($\alpha = 0.01$)**

Table 3. Summary of logarithmic regression analysis model

It is noted from the above table that the absolute value of the correlation coefficient between cash holdings and fees for non-audit services (0.100) is not statistically significant at the level of significance ($\alpha \leq 0.05, 0.01$), which indicates a weak direct relationship, which indicates that the greater the cash holdings The fees for non-audit services increased in the Jordanian public shareholding industrial companies and vice versa, i.e. the higher the fees for non-audit services, the higher the cash holdings in the Jordanian public shareholding industrial companies, and the value of the square of the correlation coefficient was ($R^2 = 0.010$), and this means that the fees for non-audit services have It explained (1%) of the variation in cash holdings, and the value of (F) was (1.308), which is not statistically significant at the significance level ($\alpha \leq 0.05, 0.01$)

Statistical significance	F value	mean of squares	degrees of freedom	sum of squares	source of variance
0.252	1.308	0.292	1	0.292	Regression
		0.223	130	29.041	residuals
			131	29.333	total

Statistically significant at the level of significance ($\alpha = 0.05$)*

Statistically significant at the significance level ($\alpha = 0.01$)**

Table 4. Logarithmic regression analysis of variance (ANOVA)

It is noted from the above table that the value of (F) amounted to (1.308), which is not statistically significant at the level of significance ($\alpha \leq 0.05, 0.01$), and this indicates the acceptance of the null hypothesis, which states that "there is no statistically significant effect of cash holdings on fees Non-audit services in Jordanian public shareholding industrial companies", which indicates the non-significance of the logarithmic regression at the significance level ($\alpha \leq 0.05, 0.01$), which means that fees for non-audit services do not affect (predict) cash holdings in Jordanian public shareholding industrial companies.

7.1 Results related to answering sub-hypotheses related to answering the main question:

First: Results related to answering the first sub-hypothesis, which states: "Is there a statistically significant effect of cash holdings on management consulting services in the Jordanian public shareholding industrial companies?"

In order to answer the first sub-hypothesis, the arithmetic means and standard deviations of cash holdings were calculated on the management consulting services in the Jordanian public shareholding industrial companies, and Table (5) shows that

Not disclosed			Disclosed			dependent variable	The independent variable (cash holdings)
standard deviation	SMA	NUM	standard deviation	SMA	NUM		
15009609.82	78314000	3	14989803.48	4029644.22	129	Management consulting services	

Table 5. Arithmetic means and standard deviations of cash holdings on management consulting services in Jordanian public shareholding industrial companies

It is noted from the above table that the arithmetic mean of the variable of cash holdings of the Jordanian public shareholding industrial companies that disclosed management consulting services, which numbered (129) companies, amounted to (4029644.22) with a standard deviation of (14989803.48), while the arithmetic mean of the variable of cash holdings of the Jordanian public shareholding industrial companies was Which did not disclose management consulting services, amounting to (3) companies (78,314,000) with a standard deviation (15009609.82), and in order to reveal the possibility of the variable of management consulting services being affected by cash holdings in the Jordanian industrial public shareholding companies, a logarithmic regression analysis was used, which is illustrated by the two tables (6,7) .

Statistical significance	F value	Standard error of estimation	Square corrected correlation coefficient	Correlation coefficient square (explained variance)	correlation coefficient R	Sample
**0.001	12.203	0.144	0.079	0.086	0.293	1

Statistically significant at the level of significance ($\alpha = 0.05$) *

**Statistically significant at the significance level ($\alpha = 0.01$)

Table 6. Summary of logarithmic regression analysis

The value of the absolute value of the abbreviation coefficient of the correlation coefficient, the greater the value of the administrative services (0.293). The increase in management consulting in companies operating in the field of Jordanian contracting, and the value of contracting for the project, has increased. And the value of management consulting and management consulting (8.6%) of the variation in the total contracts, the value of trading amounted to (12.203), which is statistically significant at the level of significance ($\alpha 0.05, 0.01$)

Statistical significance	F value	mean of squares	degrees of freedom	sum of squares	source of variance
**0.001	12.203	0.252	1	0.252	Regression
		0.021	130	2.680	residuals
			131	2.932	Total

Statistically significant at the level of significance ($\alpha = 0.05$)*

**Statistically significant at the significance level ($\alpha = 0.01$)

Table 7. Logarithmic regression analysis of variance (ANOVA)

It is noted from the above table that the value of (F) amounted to (12.203), which is statistically significant at the level of significance ($\alpha \leq 0.05, 0.01$), and this indicates the acceptance of the alternative hypothesis, which states that "there is a statistically significant effect of cash holdings on management consulting services." In the Jordanian public shareholding industrial companies", which indicates the significance of the logarithmic regression at the level of significance ($\alpha \leq 0.05, 0.01$), which means that the management

consulting services affect (predict) cash holdings in the Jordanian public shareholding industrial companies,

Statistical significance	value (v)	standard transactions	non-standard transactions		variable
		Beta	standard error	B	
**0.000	18.631		0.064	1.198	Constant
**0.001	-3.493	-0.293	0.005	-0.017	Logarithm of cash holdings

and to determine the amount of effect, coefficients were extracted Regression, which is shown in Table (8) Statistically significant at the level of significance ($\alpha = 0.05$)*
 Statistically significant at the significance level ($\alpha = 0.01$)**

Table 8. Standard and non-standard logarithmic regression coefficients

It is noted from the above table that the value of the non-standard coefficients of the regression constant was (B = 1.198) with a standard error of (0.064), and that the value of (t = 18.631), which is statistically significant at the level of significance ($\alpha \leq 0.05, 0.01$), and the value of non-standard coefficients ranged The standard logarithm of monetary holdings (B = -0.017) with a standard error of (0.005) and the standard coefficients (-0.293), and that the value of (t = -3.493) is statistically significant at the level of significance ($\alpha \leq 0.05, 0.01$) for the variable of monetary holdings, and thus it was formed the prediction equation is as follows:

Regression equation: non-normative coefficients

Log of cash holdings = 1.198 - 0.017 (management consulting services)

Regression Equation: Standard Coefficients

log of cash holdings = - 0.293 (MS)

Second: The financial results by answering the second sub-hypothesis after it arose while the Jordanian public financial companies are under implementation schedule (9) it

Table 9. Arithmetic means and standard deviations of accounts on financial services in Jordanian

standa rd deviati on	Not disclosed		Disclosed			dependent variable	The independ t variable (cash holdings)
	SMA	NUM	standard deviation	SMA	NUM		
207304 70.53	6821721.90	105	1640993.001	1425381.67	27	Tax Services	

public industrial companies

It is noted from the above table that the arithmetic mean of the variable of cash holdings of the Jordanian public shareholding industrial companies that disclosed tax services, which numbered (27) companies, amounted to (1425381.67) with a standard deviation of (1640993.001), while the arithmetic mean of the variable of cash holdings of the Jordanian public shareholding industrial companies that (105) companies did not disclose tax services (6821721.90) with a standard deviation (20730470.53), and in order to reveal the possibility of the tax services variable being affected by cash holdings in the Jordanian public industrial companies, a logarithmic regression analysis was used, which is illustrated in Tables (10,11).

Statistical significance	F value	Standard error of estimation	Square corrected correlation coefficient	Correlation coefficient square (explained variance)	correlation coefficient R	Sample
0.634	0.227	0.406	-0.006	0.002	0.042	1

*Statistically significant at the level of significance ($\alpha = 0.05$)

**Statistically significant at the significance level ($\alpha = 0.01$)

Table 10. Summary of logarithmic regression analysis model

It is noted from the above table that the absolute value of the correlation coefficient between cash holdings and tax services (0.042) is not statistically significant at the level of significance ($\alpha \leq 0.05, 0.01$), which indicates a weak direct relationship, which indicates that the greater the cash holdings, the higher the services Taxation in the Jordanian public shareholding industrial companies and vice versa, that is, the higher the tax services, the higher the cash holdings in the Jordanian public shareholding industrial companies, and the value of the square of the correlation coefficient was ($R^2 = 0.002$).

This means that the tax services explained an amount of (0.2%) of the variation in cash holdings, and the value of (F) was (0.227), which is not statistically significant at the significance level ($\alpha \leq 0.05, 0.01$).

Statistical significance	F value	mean of squares	degrees of freedom	sum of squares	source of variance
0.634	0.227	0.037	1	0.037	Regression
		0.165	130	21.440	residuals
			131	21.477	Total

Statistically significant at the level of significance ($\alpha = 0.05$)*

Statistically significant at the significance level ($\alpha = 0.01$)**

Table 11. Logarithmic regression analysis of variance (ANOVA)

It is noted from the above table that the value of (F) amounted to (0.227), which is not statistically significant at the level of significance ($\alpha \leq 0.05, 0.01$), and this indicates the acceptance of the null hypothesis, which states that “there is no statistically significant effect of cash holdings on services taxation in the Jordanian public shareholding industrial companies”, which indicates the non-significance of the logarithmic regression at the significance level ($\alpha \leq 0.05, 0.01$), which means that tax services do not affect (predict) cash holdings in the Jordanian public shareholding industrial companies.

8 Discussion and Recommendations

The aim of this study is to find out the impact of cash holdings on the fees of non-audit services "A field study on the industrial companies listed in the Amman Financial Market" and in the light of theoretical and practical analyzes and conducting appropriate statistical tests to test the hypotheses of the study and answer its questions, the following conclusions were reached:

The results of the study to test the first sub-hypothesis showed that there is a statistically significant effect at the level ($\alpha \leq 0.05$) of cash holdings on management consulting services in the Jordanian public shareholding industrial companies.

Referring to previous studies, the researcher noticed that the result agreed with the results of previous studies, including the study of (Benjamin, et al. 2015), which confirmed the existence of a positive correlation between cash holdings and audit fees, noting that the current study is measured on fees for non-audit services. This result agreed despite the difference between the variable of the current study and the study of (Al-Shaar, 2011) that there is a statistically significant effect of consulting services on audit quality.

From this result, the researcher finds that there is an impact of cash holdings on the management consulting services in the Jordanian industrial public shareholding companies, and this indicates the existence of a moderate positive relationship, meaning that the higher the cash holdings, the higher the management consulting services in the Jordanian industrial public shareholding companies.

The results of the study to test the second sub-hypothesis showed that there is no statistically significant effect at the level ($\alpha \leq 0.05$) of cash holdings on tax services in the Jordanian public shareholding industrial companies.

Referring to previous studies, the researcher noticed that the result agreed with the results of previous studies, including the study of (Frankel, et al.2002), which confirmed the absence of a statistically significant effect on non-audit services as measured by profit management indicators, considering that the study Current measured in cash holdings.

From this result, the researcher finds that there is no effect of cash holdings on tax services in the Jordanian industrial public shareholding companies, and this indicates that there is a weak direct relationship, meaning

that the higher the cash holdings, the higher the tax services in the Jordanian public shareholding industrial companies, and this means that tax services do not affect (predict) cash holdings.

Based on the previous findings of the study, many recommendations were presented, and after studying cash holdings and their impact on non-audit services fees in the Jordanian public shareholding industrial companies, the most important recommendations can be summarized as follows, The need for the concerned authorities to determine the amount of cash holdings that companies must keep and to enact the necessary laws and regulations for that, and to impose more control on companies to reduce the possibility of manipulation and misrepresentation in the financial statements, in addition to the need to work on determining the amount of fees for non-audit services according to objective bases and to oblige companies By paying the minimum of these fees and the need for the Securities Commission to oblige companies to disclose non-audit services in their annual reports, it has been noticed that some companies, especially small companies, do not disclose these services clearly, and this contradicts the professionalism and independence of the auditing profession. The researcher also recommends conducting the study on the financial sector, since the current study was conducted on the industrial sector, and that it is directed to draw the attention of financial sector companies to follow up on the process of cash holdings, especially after the auditors carried out specific procedures related to their audit. Also, the continuity of conducting research and future studies in Jordan using the same variables of the current study or variables not covered by the study, such as accounting and bookkeeping services, which could shed lighter on non-audit services.

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