
THE IMPACT OF INFORMATION TECHNOLOGY GOVERNANCE ON THE VALUE RELEVANCE OF ACCOUNTING INFORMATION

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Abstract

The research aims to demonstrate the importance of information technology governance. It also reflects its impact on the relevance of the value of accounting information. The research problem was formulated by asking the main question: Is there a statistically significant effect between information technology governance and the relevance of the value of accounting information? Relying on a questionnaire distributed to a sample of the community of accountants and auditors in banks listed on the Iraq Stock Exchange, where (165) questionnaires were distributed, the answers were retrieved at (123), and the results were analyzed using the SPSS software. The researcher used a simple linear regression model and simple Pearson correlation. After testing the research hypotheses, a set of conclusions were reached, the most important of which is the presence of a statistically significant effect of the dimensions of information technology governance on the importance of the value of accounting information. The most important recommendations emphasized by the research are that economic units should enhance relevant information technology governance practices to enhance the overall effectiveness of technology and information management.

Keywords: Information technology governance; Accounting information; Value relevance of accounting information.

Introduction

Information technology has become deeply embedded in modern organizations' decisions. IT systems capture, process, and report the financial data that drives accounting and reporting functions. However, just having technology in place does not automatically translate into high-quality, decision-useful information. Proper governance over the IT environment is critical to ensuring accounting data maintains its relevance and value (Kraus et al., 2021). Today, the world lives in an advanced and rapidly changing digital environment called the digital age, where IT governance is critical to the success of all economic units.

In this context, the concept of information technology governance has emerged with what the times require to become the basic pillar of maintaining information security, reducing potential risks, and influencing the suitability of the value of accounting information. Information technology governance means policies and framework procedures that govern the use and management of technology and information in the Economic unit. It aims to ensure the achievement of the goals of economic unity through the effective, secure, and sustainable use of technology. This is because the information is used to decide how useful the accounting information is for what they need (Elazhary et al., 2022).

Relevance relates to the specific use of the information because it is relevant when used to make a difference. It may lead to the confirmation of expectations or a change in them, which means that accounting information impacts the decision-making process. This research offers a fresh perspective on how information technology governance influences the relevance and value of accounting information. The present work is divided into four chapters to achieve the objectives. The first chapter dealt with the research methodology, the second chapter devoted the theoretical aspect to the research variables in reality, and the third chapter dealt with the practical element. The fourth chapter dealt with the most important conclusions reached by the research and the most important recommendations (Van Opijnen & Santos, 2017).

Information technology governance involves the leadership, organizational structures, and processes that align IT strategy with business strategy. With sound IT governance practices, companies can verify that systems are secure, data is reliable, and IT enables effective planning, decision-making, monitoring, and stakeholder reporting based on relevant and faithfully represented accounting information. From implementing rigorous data management policies to monitoring emerging cybersecurity threats, IT governance lays the foundation for accounting information to accurately reflect organizational performance and condition. As such, it directly impacts the usefulness of that information for investors, regulators, executives and other decision-makers analyzing a company's fundamentals and value drivers.

The problem of the study revolves around the lack of interest in information technology governance, which is an essential part of any information system in light of modern developments and risk management. Paying attention to information technology governance for accounting information to have appropriate value was necessary. Given the increasing contradiction, economic units must pay attention to appropriateness.

The main question: Is there a statistically significant effect between information technology governance and the relevance of the value of accounting information in dimensions?

The importance of the research is due to the increasing use of information technology in banks listed on the Iraqi Stock Exchange, as banks have kept pace with technological developments and innovations without establishing legal and regulatory frameworks that ensure that they carry out their work in all safety. Additionally, it helps banks reduce any negative impact regarding digital transformation. Banks are considered the main engine of economic activity. Banks face many challenges, including adapting, innovating, and responding to these developments. Moreover, Improving accounting information and making it of appropriate value requires strong governance. The research seeks to achieve several

objectives. First, it clarifies information technology governance's concept, importance, and measurement. Finally, studying the impact of information technology governance on the significance of the value of accounting information.

Research hypothesis

The main hypothesis: A significant impact of information technology governance with dimensions represented by (planning and organizing, ownership and implementation, support and delivery, follow-up and evaluation, and guidance and control) on the relevance of the value of accounting information with dimensions.

Literature review

Many writers and organizations have defined IT governance. The first thing to know is that ITGI defines it as: "IT Governance is the responsibility of the board of directors and executive management. It is an essential part of governing the entire organization. It includes the leadership, structures, and processes that ensure IT supports and helps achieve the organization's overall strategy and goals." (Gheorghe, 2010:33)

In other words, IT Governance refers to how the top leaders and managers oversee and direct the use of information technology. The processes they put in place ensure IT aligns with and enables the broader mission and objectives of the company or institution. IT Governance makes IT an integral component of organizational governance and decision-making.

Applegate and Austin (2006) define it as an effective tool or means to support the economic unit and help the Board of Directors and its executive management to achieve its long- and short-term strategic goals by creating intellectual compatibility between information technology and the activities of the economic unit to reach its future leadership (Turban et al., 2008).

Information technology governance seeks to achieve many objectives that affect the performance of the economic unit. First, develop IT strategies and conduct major strategic and operational reviews. Undertaking strategy formulation requires imagination and IT capabilities to build better relationships with partners, customers, and employees. Second, ensuring the efficiency of information technology services contributes to delivering the strategy to business activities seeking effective and efficient internal productivity. Third, increasing capabilities related to information technology governance attract innovations and inventions to achieve the desired benefits (Aghion et al., 2009). Notably, information technology governance is important and necessary as it enables management to accurately determine customer requirements and interests within the general framework of the service provided by the economic unit. It is based on assisting, guiding, and participating with senior management to benefit those who deal with the economic unit. The increasing importance of information technology governance in achieving economic returns and incurring costs for all activities carried out by the economic unit (Weill & Ross, 2004). COBIT is an IT risk management framework that helps managers, auditors, and users become familiar with their organizations' IT systems. It also works to modernize the governance model and direct them towards the level of security and control necessary to preserve the assets of their facility (Al-Hila et al., 2017). The COBIT framework (34) describes a general purpose that IT projects

must achieve. The framework has five dimensions: planning and organizing, owning and implementing, supporting and communicating, monitoring and evaluating, directing and controlling (Etzler, 2007).

Planning and organising include improving the company's technology use to help it achieve its public and private goals. In addition, this concept emphasizes organizing IT in organizations in the form of infrastructure and achieving satisfactory results while using IT. In another way, it explains strategies and tactics regarding IT's contribution to the company. It emphasizes that business objectives must be aligned with the plan (Okoye & Ezejiolor, 2013). Acquisition and implementation are defined as identifying and acquiring technical requirements and then implementing them through ongoing processes within the company. As an illustration, developing a plan to preserve the company's information and assets helps extend the life of the company's information technology and its components. Also, I designed processes in the field of acquisition and implementation to identify, develop, obtain, implement, and integrate technical information solutions into the organization's work process. Moreover, maintenance and changes to existing systems are included in this area to ensure the continuity of the system life cycle (Ling & Yen, 2001).

The importance of the value of accounting information is that many points of view were interested in studying the suitability of accounting information, as the suitability of accounting information is crucial to the stock market's growth (Țurleaa et al., 2021). As a result, if financial statements are considered value-relevant, they demonstrate the quality of accounting standards and practices used as well as the maturity of the local stock market (Mulenga, 2016). Belkadi et al. (2020) define in their research that all IT processes and resources need to be systematically measured regularly to obtain quality control and compliance requirements, to achieve administrative oversight of company-related operations, and to provide them with independent cadres through internal and external training (Emmanuel et al., 1990). "The relevance of the value of accounting information lies in the ability of the information prepared by international financial reporting standards to represent the events that affect the market value of the unit, the share price, and the earnings per share" (Pășcanm, 2015:582). Also, "value significance is understood as the ability of accounting procedures to capture or summarize information that affects stock values and empirically tested as a statistical correlation between market values and accounting value" (Makaya, 2018:33).

The relevance of the value is not only beneficial to investors but also to other users and market players. Therefore, investors view information as relevant and reliable if it can help them make an appropriate investment decision. Equally important are the characteristics of accounting information's value relevance, centering on clarifying tasks and evaluating relevance and objectivity. First, verifying the accounting measurement estimate's number relevance to investors' economic unit evaluation information is key to establishing accounting information value appropriateness. Second, accounting information is intrinsically linked to the standard-setting bodies and associated institutions because it provides important information to those who wish to implement standards and other academic professionals. Third, the goal of appropriateness of the value of accounting information is to use accounting principles developed by the Financial Accounting Standards

Board (FASB) to evaluate the suitability and objectivity of accounting numbers (Watts, 2003).

Many factors affect value relevance, as many studies attribute several aspects to the value relevance of accounting profits, which changes the model's explanatory power and reduces the response coefficient to accounting profits, leading to a focus on book value more than accounting profits. These components include transitory earnings, intangible assets, firm size, and governance (Ali & Hwang, 2000). In terms of their nature, Transitory earnings are the profit that may be temporary or permanent. Temporary profits consist of temporary components that affect the profit and lead to its increase or decrease. As a result, it leads to an unexpected change in profit that affects the stock price. In this case, the relationship is stronger or weaker depending on the surprise's magnitude.

Firm size is one of the factors that affect the appropriateness of the value of the information contained in accounting records, as many studies have proven that the value of the information contained in accounting records for small units is greater than for large units, due to the presence of multiple and competing sources of information for large units. It explains Also this (Ali & Hwang, 2000). This is because larger units receive more public attention and are more heavily covered by the media. As a result, the stock prices of large economic boards consist of general information about the possible future of the monetary unit and a faster way to obtain this information. Both scenarios have a smaller response coefficient for larger economic units. Firm size and intangible assets positively impact a stock's market price because the information related to them is relevant and has predictive value. Studies have found that intangible assets increase the value relevance of earnings, leading to a higher stock price (Qureshi & Siddiqui, 2020).

Finally, an economic unit with effective governance is likely to consider its information to be relevant in value, and this has an impact on the degree of trust among all parties involved, as well as external investors who wish to participate in the economic unit. One of the most common issues is the conflict between controlling shareholders and minority shareholders, which is known as the agency problem. This requires a highly competent board of directors to reduce disputes and produce more accurate reports in the market. Without a highly qualified board of directors, this may lead to financial information that does not consider the economic unit's performance (Ciborra & Navarra, 2005).

Methodology

In this research, the researcher relied on the descriptive analytical approach to reveal the impact of information technology governance on the relevance of the value of accounting information as data will be obtained. Through this aspect, the questionnaire tool is the source that the researcher resorted to by preparing a questionnaire form that works to measure data and information related to the field aspect of the research through several questions that are asked directly to the sample members from the researched community, where clarity is taken into account. Out, Homogeneity in wording and the ability to diagnose and measure the sub-variables of the research through the use of a scale that measures the answers of individual respondents is called the five-point progressive Lockert scale.

Statistical Analysis and Result

Testing the hypothesis

The statistical analysis shows the impact of information technology governance with dimensions represented by (planning and organization, ownership and implementation, support and delivery, follow-up and evaluation, and direction and control) on the relevance of the value.

This hypothesis and subsequent hypotheses will be tested based on the results of the questionnaire analysis of the three research variables.

$$Rel = B_0 + B_1 ITG + \varepsilon$$

Whereas:

Rel = Dependent variable (value relevance).

B_0 = Constant regression equation

B_1 = Regression functions.

ITG = Independent variable (IT governance).

ε = Estimation errors or so-called statistical residuals.

The results are as follows

Table (1) Summary of the model for testing the first main hypothesis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.569 ^a	.323	.318	.44994

a. Predictors: (Constant), ITG

b. Dependent Variable: Rel

Test results revealed a 0.569 correlation value (R) between the two variables. The coefficient of determination (R Square) was 0.323. This number explains the model's explanatory power - the independent variable (IT governance) accounts for 32.3% of the variance in the other variable (value relevance).

Additionally, the standard deviation of the estimated error was 44994.0, which is a very low number. A lower error value like this is better from a statistical point of view. A low standard deviation for the estimation error indicates the model can accurately predict the actual values of the dependent variable (value relevance) based on the independent variable (IT governance).

In simple terms, the correlation is reasonably strong, the model explains a decent portion of the variance, and the low error value means the predictions from the model are fairly precise. Overall, these statistics suggest the model is quite reliable.

Table (2) Variance of testing the first main hypothesis

		ANOVA ^a				
Model		Sum of Squares	df ¹	Mean Square	F	Sig.
1	Regression	11.703	1 ²	11.703	57.809	.000 ^b
	Residual	24.496	121 ³	.202		
	Total	36.200	122 ⁴			

a. Dependent Variable: Rel

b. Predictors: (Constant), ITG

1- df means degrees of freedom, and it is an abbreviation of degrees of freedom.

2- The first degree of freedom

3- The second degree of freedom.

4- The sum of the first and second degrees of freedom

5- Regression analysis is based on the fact that the residuals are normally distributed at all points of the independent variable. This means they change from negative to positive around the zero value in a normal distribution so that their sum is zero.

This table shows the results of testing the first main hypothesis using an analysis of variance (ANOVA). The total variance is broken down into two parts - the variance explained by the regression model (called "Regression" in the table) and the variance not explained by the model (called "Residual").

The table showing the analysis of variance (ANOVA) has some important numbers. The calculated F value is 57.809. This number is higher than the table value of 3.84. The table value is based on the degrees of freedom (121, 1) at a 5% significance level.

The significance level (Sig) is also given as 0.000. This number is less than the accepted error value of 0.05 that is commonly used in social sciences.

Having the calculated F value be higher than the table value and the significance level lower than 0.05 indicates that the statistical model used to test the hypothesis is suitable. The results from this model can be relied upon.

Table (3) Regression function coefficients for the first main hypothesis

		Coefficients ^a			t	Sig.
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	.364	.466		.780	.437
	ITG	.902	.119	.569	7.603	.000

a. Dependent Variable: Rel

The regression table shows the constant value in the regression equation is 0.364. It also shows the slope value is 0.902, which indicates how much the IT governance variable affects the value relevance variable.

A positive slope value means there is a direct relationship between the two variables. An increase of one unit in the independent variable (IT governance) leads to a 90.2% increase in the dependent variable (value relevance), if the other independent variables stay the same. The significance level (T) for the independent variable is 0.00, which is much less than the acceptable 0.05 error level in social sciences. This means the data sample provides strong evidence to accept the hypothesis that the effect is real - IT governance has a direct, statistically significant positive impact on value relevance.

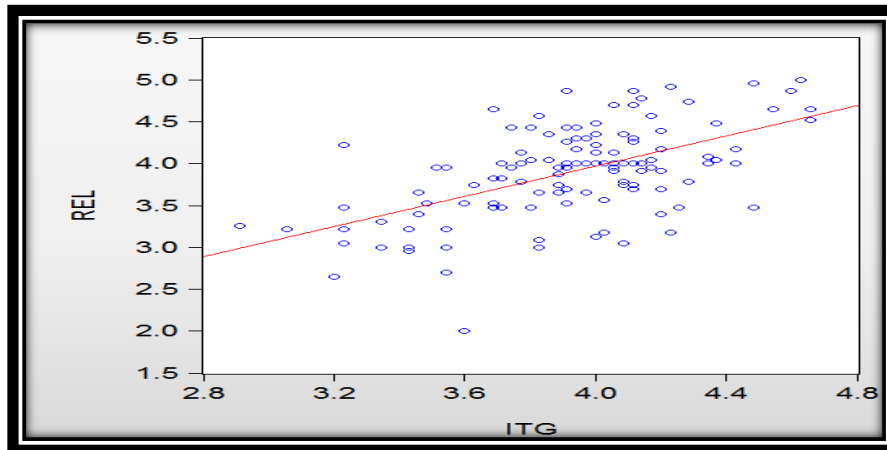


Figure (1) The relationship between IT governance and value relevance

The reformulated regression equation:

$$Rel = 364 + 0.902 * ITG +$$

The following diagrams represent the normal distribution of the accuracy, previous regression equation, and the distribution of points around the straight line.

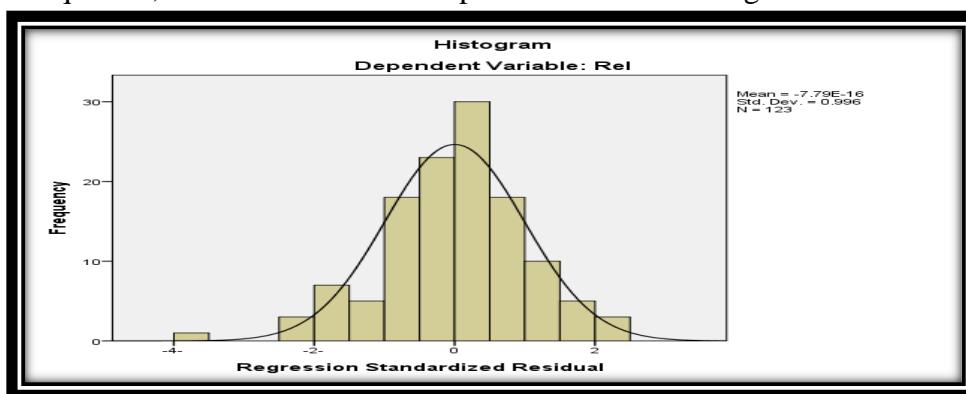


Figure (18) histogram of the remainder of the hypothesis

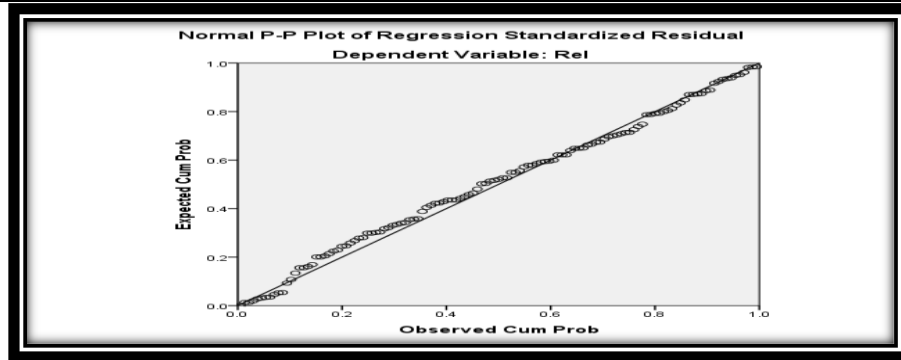


Figure (19) Normal distribution of the remains of H1

Conclusion

The statistical analysis provides strong evidence that information technology governance significantly impacts the value relevance of accounting information.

The model summary table shows a reasonably high correlation of 0.569 between the IT governance and value relevance variables. The R-squared value of 0.323 means the IT governance factor explains about a third (32.3%) of the variance in how relevant and valuable the accounting data is perceived.

A basic linear regression model is needed to test if the statistical analysis is valid. The hypothesis was proven true using this model. The hypothesis stated that information technology governance in its different parts (planning and organizing, ownership and implementation, support and delivery, follow-up and evaluation, guidance and control) has a statistically significant effect on how relevant and valuable accounting information is in its different parts.

The ANOVA table backs up the significance of this relationship. With a very high F-value of 57.809 and a near-zero p-value of 0.000, we can reject the null hypothesis. The data supports the alternative hypothesis that IT governance influences value relevance.

The analysis found that the correlation coefficient (R) between the variables was 0.569, which is a very strong value. The coefficient of determination (R Square) was 0.323, which shows how much of the model can be explained. The independent variable (information technology governance) explains 32.3% of the dependent variable (relevance of accounting information value).

Therefore, we can conclude that the main hypothesis is confirmed - the different parts of information technology governance do have a statistically significant effect on how important and valuable accounting information is. It focuses on the important role of planning, organizing, implementation ownership, support provision, delivery oversight, follow-up evaluation, and guidance control in shaping accounting information's relevance.

Recommendations

1. Economic units are advised to enhance relevant IT governance practices to enhance the overall effectiveness of technology and information management. First, it includes focusing on key areas such as (planning and organizing, ownership and implementation, support and delivery, monitoring and evaluation, direction and control). Another key point is ensuring

the effective and proper use of technology; economic units can increase the relevance and value of accounting information in decision-making processes.

2. Applying information technology governance in economic units to enhance the effectiveness and accuracy of accounting information will make accounting information valuable and relevant.

3. The economic unit encourages innovation and continuous improvement in the field of information technology by taking advantage of the most effective practices, taking advantage of the latest technologies, and exploring modern innovative solutions that will enhance the efficiency of the economic unit and thus improve overall performance.

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