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**THE RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY GOVERNANCE AND THE
PERFORMANCE OF SMES IN NIGERIA: EMPIRICAL EVIDENCE FROM ILORIN, KWARA
STATE**

Yunus, Abdulrasheed Bolaji	Department of Accounting, University of Ilorin, Ilorin
Abdulrafiu, Dauda	Department of Accounting, University of Ilorin, Ilorin.
Opefolu Francis Olatunji	Department of Accounting, Ekiti State University, Ado-Ekiti
Muhammed, Lawal Subair	Department of Accounting & Finance, Kwara State University, Malete
Alkadriyar Sherifdeen	Departments of Religion, History and Heritage Studies, Kwara State University, Malete

Abstract

One of these ideas that arose out of nowhere and became a significant concern in the field of information technology, particularly with regard to the operations of SMEs, is IT governance. To accomplish the integration of business and IT, some firms began by implementing IT governance. Small and medium-sized enterprises contribute significantly to innovation, revenue generation, economic dynamism, and job creation while also accounting for the shift to a market economy. Performance and its indicators have been categorized differently based on the methods and goals of the business. Using data from a subset of SMEs in Ilorin Metropolis, this study looked at the information technology governance and performance of SMEs in Nigeria. Both primary and secondary data were employed in the investigation. While the secondary data was taken from various literatures and annual reports that were available online and at the library, the primary data was obtained from the field during the research process from a selection of SMEs. The study hypotheses were tested using ordinal logit regression, and the results showed a strong relationship between the performance of SMEs and portfolio management. The study then came to the conclusion that in order to achieve their goals and achieve great results, SMEs need think about both portfolio management and investment management. As a result, the study suggests that when it comes to SMEs and IT governance, researchers and practitioners alike should adopt a more unique perspective of SMEs.

Key words: Governance, SMES, Information Technology, Performance

1. Introduction

The goal of small and medium-sized businesses (SMEs) is to acquire, monitor, and manage quality performance throughout time in order to sustain development and competitiveness, given the rapidly evolving inventive period in the globalized and knowledge-based economy. Consequently, there is a need to concentrate on IT governance since the extensive use of technology has led to a critical reliance on IT. The processes, organizational structures, and leadership that make up IT governance will guarantee that IT upholds and expands the enterprise's goals and strategy. One of the contentious topics in small and medium-sized businesses is IT

governance, and high-level models like COBIT and the VAL IT Framework have been created to help with its implementation. The first stage is to choose an IT governance model, and the next step is to put the chosen model into practice as a solution. A good business performance should result from the choice and application of an IT governance model (Damianides, 2015). Three primary goals are supported by IT governance, according to Robinson (2015): operational excellence, legal and regulatory compliance, and optimal risk management. According to Robinson, bad IT performance frequently leads to unsuccessful IT initiatives, as well as poor time, money, and return on investment (ROI) management. Therefore, it is clear that governance is necessary to

ensure accountability and openness in order for organizations to operate at their best. In the current generation, technology is essential for start-ups and small-to medium-sized enterprises (SMEs) to stay ahead of the competition. Despite the growing significance of IT governance, data indicates that many SMEs have not been successful in using IT to their full potential.

Over time, SMEs are the sector with the quickest rate of growth, creating a sizable number of jobs for the general public. SMEs continue to confront numerous challenges in spite of this, especially in relation to the expenses of technology, technological malfunctions that result in the loss of crucial data, technological change, and a lack of IT know-how, all of which can have a significant impact on smaller enterprises. Businesses must stay up to date with technological advancements to make sure the tools they use are efficient and promote productivity, as technology is changing quickly. While nearly half of small businesses outsource most or all of their technology management and support, this is not always an effective approach to handle IT challenges, and it can be costly to stay up with technological advancements. When there is no qualified inside person executing the position as the SME's IT specialist, outsourcing can be ineffective and cause issues. For SMEs, governmental policies and laws pertaining to IT technologies might provide difficulties. It can be challenging for small businesses to stay on top of these rules and regulations, which are subject to quick changes. Given the critical role that IT governance plays in businesses, it is now believed that IT governance must be put into place in order to support and facilitate business goals and reduce related risks. (Adenikinju&Osakede, 2020; Aremu&Adeyemi, 2011; Bhatiasavi, 2010; Dinh&Calabrò, 2019; Grant, 2017; Guldentops, 2014; Huang, Yi, Chen, Xu, & Chen, 2016; Musawa&Wahab, 2012). Benefits from corporate IT investments are directly impacted by IT governance (Weill & Ross, 2014). Small and medium-sized businesses are affected by this. However, SMEs use IT governance methods far more frequently (Huang et al., 2016). Accordingly, the sector's troublesome governance-related problems originate from IT strategic planning and execution to management, support, and monitoring (ITGI & PwC, 2016). Therefore, to improve public service delivery efficiency and satisfy stakeholders, consistent strategy

alignment and business goals are necessary for the efficient integration of ICT and, in fact, ICT-enabled transformative governance in these environments (Guldentops, 2014). Based on this context, the study looks at how information technology governance affects small and medium-sized businesses' performance in the city of Ilorin.

The main objective of this research is to examine the impact of Information Technology Governance and Performance of Small and Medium Enterprises in Ilorin Metropolis.

The study specifically:

- i. To access the impact of Portfolio Management on the SMEs Performance in Ilorin metropolis.
- ii. To understand the impact of Investment Management on the SMEs Performance in Ilorin metropolis.

Research Hypotheses

This research hypothesized that:

- H₀₁** There is no significant impact between Portfolio Management and Small and Medium-Sized Enterprises Performance
- H₀₂** There is no significant impact between Investment Management and Small and Medium-Sized Enterprises Performance

2. Literature Review

2.1 Conceptual Review

2.1.1 IT governance

Different definitions have been given to information technology governance in literature. IT governance is high on the agenda of many organisations and receives a lot of attention in both the academic and professional literature (Peterson, 2014). IT governance is the organisational capacity exercised by the board, executive management and IT management to control the formulation and implementation of IT strategy and in this way ensure the fusion of business as well as IT (Van Grembergen, & De Haes 2016). IT governance is basically the responsibility of the board of directors and executive management. It is an integral part of

enterprise governance and consists of the leadership and organisational structures and processes which

ensure that the organisations IT sustains and extends the organisations strategy and objectives.

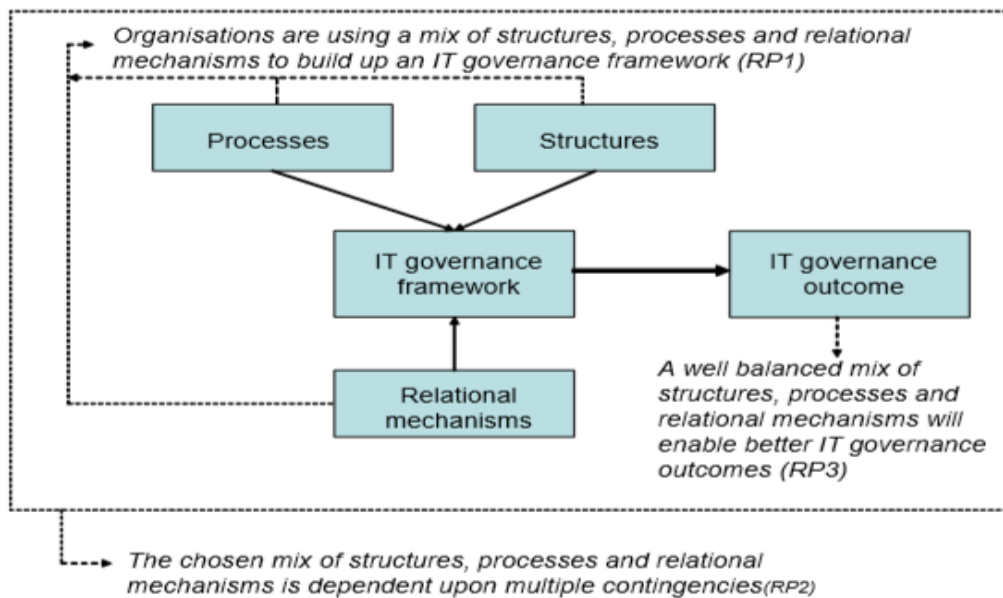


Figure 1; Understanding IT Governance

Having developed a high-level IT governance model does not imply that governance is actually working in the organisation. Thus, conceiving the IT governance model is the first step, implementing it into the organisation is the next challenging step. As proposed by Peterson (2014) and Weill & Woodham (2012), IT governance can be deployed using a mixture of various structures, processes and relational mechanisms.

The relational mechanisms finally are crucial in the IT governance framework and paramount for attaining and sustaining business-IT alignment, even when the appropriate structures and processes are in place (Callahan & Keyes, 2013). These mechanisms include business/IT participation, strategic dialogue, training, shared learning and proper communication.

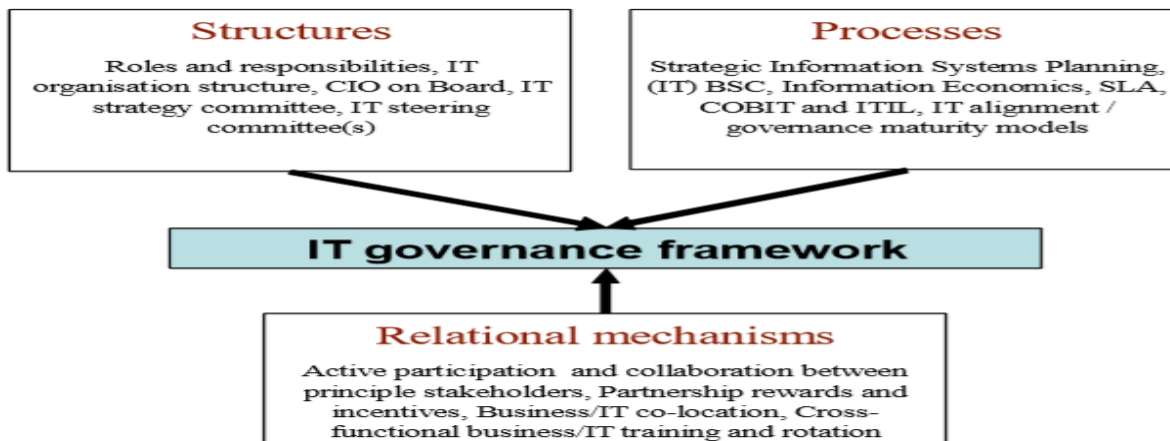


Figure 2; Necessary elements of IT Governance framework

However, each of these practices serve specific or multiple goals in the complex IT governance challenge. Thus, dividing the complex IT governance problem into smaller pieces, and solving each problem separately does not always solve the complete problem, but rather a holistic approach towards IT governance acknowledges its complex and dynamic nature, consisting of a set of interdependent subsystems that

deliver a powerful whole (Duffy 2012; Patel, 2014). The necessary set for a successful IT governance framework therefore consists of a mix of structures, processes and relational mechanisms, which can be visualised in Figure 2 above.

When designing the IT governance framework of structures, processes and relational mechanisms, it is

important to recognise that the mix of mechanisms is contingent upon a variety of factors. Determining the right IT governance implementation framework is therefore a complex endeavour and it should be recognised that what strategically works for one company does not necessarily work for another, even if they work in the same industry sector (Patel 2014, Ribbers, Peterson & Parker, 2012).

2.1.2 Value Governance

In its simplest form, value governance deals with the way managers of an organization creates standards of what is acceptable and what is not as well as how the form of cultural relativity they create in such organization, which is in turn related to either good or bad performance on their investments (Shleifer & Vishny 2017). Value governance in organizations refers to the design of structure that induces or force management to put forward the morality and standards in all their doings (Tirole, 2011). Value governance can be said is to a large extent, a set of mechanisms through which inside investors protect themselves against expropriation by outsiders (La Porta *et al.* 2020). Along similar lines, from the regulatory perspective, value governance is defined as the system of laws, rules, and factors that control operations at a company (Gillan & Stark, 2018).

Defined broadly, corporate governance is important to all forms of business entity because it deals with their laws, regulations and accepted business practices, which together govern the relationship, in a market economy, between corporate managers and entrepreneurs (corporate insiders) on one hand, and those who invest resources in corporations, on the other (Oman 2011). It also refers to the relationships among management, the board of directors, shareholders, and other stakeholders in a company. These relationships provide a framework within which corporate objectives are set and performance is monitored (Mehran 2013).

2.2 Theoretical Review

Organizational Contingency Theory

This study is pinned the Organizational Contingency theory was developed in 1950 by the findings of leadership behaviour research conducted by researchers from Ohio State University (Donaldson, 2001; Nohria&Khurana, 2010). The report showed that effective leadership behaviour revolves around building

good rapport and interpersonal relationships (Consideration); and Initiation of structure that ensures task completion and goal attainment. Similarly, at about the same time, University of Michigan's Survey Research Center investigated group productivity to assess effective leadership behaviours. The findings are akin to the consideration and initiating structural behaviours identified by the Ohio State studies (Donaldson, 2001), however, termed these leadership behaviours relation-oriented behaviour and task-oriented behaviour.

Robert Blake and Jane Mouton in 1964 extended the research to suggest that effective leaders score high on both these behaviours. Both types of research faulted previous theories such as bureaucracy theory of Weber and scientific management of Taylor, claiming that they failed because they neglected the influence of various environmental contingencies on organizational structure and leadership style. That is there could not be "one best way" or "Best fit" for all leadership styles or organising. Organizational Contingency theory has sought to formulate broad generalizations about the formal structures that are typically associated with or best fit the use of different technologies (Nohria & Khurana, 2010). This perspective originated with the work of (Woodward, 1958) who argued that technologies directly determine differences in such organizational attributes as the span of control, centralization of authority, and the formalization of rules and procedures.

The theory upholds an approach to the study of organizational behaviour in which explanations are given as to how contingent factors such as technology, culture and the external environment influence the design and function of organizations (Bastian & Andreas, 2012). The assumption underlying contingency theory is that no single type of organizational structure is equally applicable to all organizations. Rather, organizational effectiveness is dependent on a fit or match between the type of technology, environmental volatility, the size of the organization, the features of the organizational structure and its information system. The theory was developed from the sociological functionalist theories of organization structure such as the structural approaches to organizational studies by Smith and Farquhar (2016) and Chenhall (2013). These studies postulated that organizational structure was contingent on contextual

factors such as technology, dimensions of task environment and organizational size. It is still regarded as a dominant paradigm in management accounting research (Cadez & Guilding, 2018). Organizational Contingency theory has been identified as an important area of research in management accounting (Chenhall, 2016). Hofstede classic fieldwork in 1967 was among the earlier management accounting research adopting a contingency perspective. It was found that economic, technological and sociological considerations had a significant impact on the functioning of budgeting systems.

2.3. Empirical Review

Numerous works of literature were reviewed on information technology governance and performance of SMES in Nigeria as follows to determine existing gaps.

An examination of previous research revealed that there is evidence of a relationship between IT governance and performances (De Haes & Grembergen, 2018). The review of the literature also points out that little research is done on the relationship between IT strategic alignment and IT governance structures in organizations. This argument was supported by Chan and Reich (2017) who also stated that “more research and exploration is required into the means or antecedents of organizational performances. As evidenced by De Haes and Grembergen (2017) a lack of research exists that deals with implementation of IT governance as well, and research done by Hirschheim and Sabherwal (2011) agrees on the lack of study on set down goals and how it is achieved and sustained. An analysis of Hirschheim and Sabherwal (2011) research revealed that the adoption of the business topologies, prospectors, defenders and analyzers as the chosen framework to measure and describe information technology alignment strategies, implied that these measures fit an aligned behavior, but according to Das, Zahra, and Warkentin, (2013) this explanation is unsatisfactory and they reasoned that IT strategy are measured by results while business practices are process oriented.

Current research into the management of technology practices found in a great number of corporations around the globe has shown that most organizations are not generating optimal value from their IT investments (Ross & Weill, 2012). According to Doyle, Ge, and McVay, (2017), the most important factor

distinguishing top performing from substandard-performing organizations is the level of leadership by business and senior managers in a handful of key IT decisions. Ross and Weill also states that an efficient and effective information infrastructure can enhance shareholder value. Conversely, they argue that the image of the organization can be affected with failures in IT in an interconnected economy resulting in an ever increasing drive to ensure controls are in place internally.

Fortunately, Boards of directors can transition into IT governance framework according Klamm and Watson (2019) and these frameworks are by various standards and most already exist and are well established sound practices that also provide the necessary guidance and support materials that enable the organization to adapt and establish an inaugural ground for governance structure. Beneish, Billings and Hodder (2018) offered that each governance framework has its own strength and weaknesses, and while they have been developed to serve different purposes, many share similar functions in achieving the desired objective. In supporting this claim, current literature suggests that ongoing research initiatives are being put together and integrate the leading frameworks to achieve greater compatibility (Klamm& Watson, 2019). Hammersley, Myers and Shakespeare (2018) suggested that a large volume of studies using SOX data has emerged, primarily investigating the characteristics of firms reporting material weakness (MW) and the effect of internal control reports on market conditions. Ge and McVay (2015) added that firms reporting MWs are normally smaller in size have complex operations and financially weaker (Klamm& Watson 2019). Boards should then be aware that the stock-price reaction to reports of MWs is negative, especially for those reports that are severe. Kordel, (2014) argued that while business capitalize on opportunities derived from IT, these advantages are slowly dissipating; in some instances these are over-estimation of the strategic benefit, hence can lead to an over expenditure on technology.

Kordel also argued that management should understand the importance of IT risk management by having a strategic plan to highlight vulnerabilities and ensure the business executives also focus on potential technological vulnerabilities to ensure success in the organization. Cook, Probert and Martin (2019) emphasized that by maintaining operational

effectiveness, revenue streams and profitability are more consistent, resulting in improved financial forecasting and investor confidence, they argued that most businesses today need an IT unit to achieve success.

With the advent an effective IT office, new revenue streams and opportunities can be pursued. Customers can be won because of new innovation and performance by the company and hence an increased value on the organization based on stakeholder perception (Cook, Probert& Martin, 2019).

3. Methodology

This study employed a survey research design to examine information technology governance and the performance of SMEs in Nigeria, with empirical evidence from Ilorin, Kwara State. The population of this study consisted of Small and Medium-Sized Enterprises in the Ilorin Metropolis, as the study focused on SMEs' performance in the city. Purposive sampling was employed because this technique allowed the researcher to select SMEs based on how effectively they achieved their day-to-day goals. SMEs were purposively selected across the local government areas in the Ilorin Metropolis, after which the researcher

randomly selected respondents deemed fit for the research focus.

For the purpose of this research, 12 SMEs were selected across the metropolis, and 5 staff members were selected from each SME, making a total of 60 respondents for the study. Thus, the total number of respondents for the study was 60 across the 12 SMEs. All the administered questionnaire copies were completely filled and retrieved for data estimation. The questionnaire copies were collected back in the same manner they were distributed.

The questionnaire items were designed using a 4-point Likert scale of strongly agree (SA), agree (A), strongly disagree (SD), and disagree (D) to gather the views of respondents. This study used primary data sourced through the distributed questionnaires. A reliable questionnaire was trusted to repeatedly measure the required trait consistently and precisely. The Test-Retest technique was employed. The relationship between the dependent and independent variables was confirmed reliable after testing the relationship of the Ordered Logit Regression results at different levels of coefficient.

4. Results and Discussion

Table 1: Ordered Logit Regression Parameter Estimates

	Estimate	S.E.	C.R.	df.	Sig.
Set of IT Mechanisms ← Value Management	1.159	0.295	6.072	1	.001
Formal Processes ← Value Governance	0.852	0.162	3.554	1	.002
IT steering committee ← Value Management	0.909	0.198	2.873	1	.001

*Range: 1=strongly Agree; 5=strongly Disagree;

p<=0.500 is negative

Interpretation

Ordinal Logit Regression assumes that the dependent variable should be measured on an ordinal level and the independent variable should have a significant effect or impact on the dependent variable. Here, the independent variable is value management/governance and thus the above table shows a probability that value management tends to

have an effect on set of IT mechanisms employed across the selected firms. Also, there is a probability of little impact between formal processes of executing plans and value governance among SMEs and finally, it was discovered that IT steering committee and value management are more probably connected in the management of SMES.

Table 2: Cross tabulation of respondents based on Investment Management and SMEs performances;

		SMEs Performances					Total
		SA	A	U	D	SD	
Investment Management	SA	16	11	2	3	2	34
	A	6	2	0	1	1	10
	U	3	1	1	0	0	5
	D	1	0	1	0	1	3
	SD	2	2	0	1	1	6
Total		28	16	4	5	5	58

Source; Field Survey, 2024

Table 3: Ordered Logit Regression Parameter Estimates

	Estimate	S.E.	C.R.	df.	Sig.
ROI ← Value Management	1.761	0.314	4.702	1	.000
ROA ← Value Governance	0.904	0.247	3.361	1	.002
ROE ← Value Management	0.512	0.188	2.480	1	.002

*Range: 1=strongly Agree; 5=strongly Disagree;

p<=0.500 is negative

Interpretation

Ordinal Logit Regression assumes that the dependent variable should be measured on an ordinal level and the independent variable should have a significant effect or impact on the dependent variable. Here, the independent variable is value management/governance and thus the above table shows a probability that value management tends to have an effect on firms ROI across the selected firms. Also, there is a probability of little impact between firms ROA and value governance among SMEs and finally, it was discovered that ROE and value management are more probably connected in the management of SMES.

4.1 Discussion of finding

The findings of this study on information technology (IT) governance and the performance of SMEs in Ilorin Metropolis revealed a significant relationship between effective IT governance and enhanced SME performance. SMEs that implemented structured IT governance frameworks demonstrated improved operational efficiency, better decision-making, and higher productivity. This aligns with existing literature, emphasizing the critical role of IT governance in fostering organizational success. The results also highlighted that SMEs with purposive IT governance practices were more likely to achieve their strategic objectives; as such practices facilitated better alignment between IT resources and business goals.

Additionally, the use of IT governance mechanisms, such as monitoring systems and risk management strategies, contributed to minimizing operational disruptions and ensuring business continuity. However, challenges such as limited financial resources, inadequate technical expertise, and low awareness of IT governance practices were identified as barriers to optimal performance among SMEs. These findings suggest the need for capacity-building programs, government support, and strategic partnerships to enhance IT governance capabilities in the SME sector

5. Conclusion and Recommendations

This study examined the impact of information technology (IT) governance on the performance of SMEs in Ilorin Metropolis, Nigeria. The findings demonstrated that effective IT governance plays a crucial role in enhancing SME performance by improving operational efficiency, aligning IT strategies with business goals, and minimizing risks. SMEs with robust IT governance frameworks were better positioned to achieve their objectives, overcome challenges, and sustain competitive advantages in a dynamic business environment. However, challenges such as limited resources and technical expertise hindered the adoption and effectiveness of IT governance practices in many SMEs. Based on the findings, the study recommends that;

Recommendations

1. **Capacity Building:** SMEs should invest in training programs to enhance the technical expertise of their staff and create awareness about the importance of IT governance in achieving business goals.
2. **Government Support:** Policymakers should provide financial incentives, grants, or low-interest loans to enable SMEs to implement IT governance frameworks and adopt advanced technologies.
3. **Adoption of Best Practices:** SMEs should embrace globally recognized IT governance

- frameworks, such as COBIT or ITIL, to establish standardized and efficient practices.
4. **Collaborative Efforts:** SMEs can collaborate with industry stakeholders, IT professionals, and business associations to share resources, gain insights, and adopt innovative IT governance solutions.
5. **Continuous Monitoring and Evaluation:** SMEs should periodically review their IT governance policies and practices to ensure alignment with organizational objectives and respond to changing market conditions.

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