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Moderating Effect of Internal Control System on the Relationship between Environmental Turbulence and Firm Performance in Jordanian listed Companies

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ABSTRACT

Purpose: The purpose of this paper is to investigate the impact of environmental turbulence on firm performance of listed companies in Jordan. A conceptual model is proposed in this paper where firm performance is expected to be influenced by a two-dimensional environmental turbulence factor (technological turbulence and market turbulence) with a moderating factor of internal control system.

Proposed Method: A questionnaire survey would be administered to 253 listed companies in Amman stock Exchange and analysis could be done with Partial Least Square (PLS) for testing the hypotheses of the study that firm performance is being influenced by environmental turbulence with a moderating effect of internal control system.

Expected Results: It expected that when this proposed conceptual model is used with empirical data, the result of the research will provide a good understanding of the influence of the two environmental turbulence factors (technology and market) on firm performance of Jordanian listed companies. The result will also highlight the extent of the moderating effect of internal control system on the relationship between environmental turbulence and firm performance.

Implication: Even though this research paper only presents a conceptual framework, but it proposes an aspect that needs to be tested with empirical data among Jordanian listed companies because of their significance in the business environment and the Jordan's economy as a whole. The study is also of particular importance to the management of listed firmsinknowing the moderating role of their internal control system on the relationship between the environmental turbulence and firm performance.

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1. Introduction

In the present-day business world, organizations have put in place mechanisms and are continuously striving improving them for the achievement of more responsive growth, continuous improvement, profitability, sustainability, and competitive advantage in global business spectrum (Salajegheh,

Chamanifard, Chamanifard, & Nikpour, 2015). Furthermore, organizations find themselves in dynamic environments with its predictable and unpredictable changes. As a result, enterprises end up spending a lot of efforts, money and other resources to achieve high performance results. Moreover, in such highly competitive global crisis situations, the dynamic business environments are requiring enterprises to achieve excellent organizational control systems to manage all business aspects responsively. Thus, businesses are faced with new challenges that require the deployment of latest managerial practices and tactics (Fard & Karimi, 2015). Conclusively, for organizations to achieve high performance, it has become essentially important to look in with a critical perspective as to what internal and external factors can be significant in their influence towards firm performance.

The organizations inability to read the environment's indexes and variables has appropriately exposed them to difficulties that make the organization unable to achieve the goals with the needed effectiveness and efficacy (Danneels & Sethi, 2011).

Literature has outlined that environmental turbulence has a major impact on performance at the firm level. Major management practice gurus under the explanations of contingency theory (Lawrence & Lorsch, 1967) have outlined that environmental turbulence is an important prospect that offer insight into both aspects of a business i-e opportunity as well as challenge. Accordingly, in the views of Bedeian & Wren (2009), effective and healthy businesses tend to focus on their organizational environment whereby, large corporate businesses effectively deployed contingency approach in their managerial practices to examine any such turbulence (Kreitner, 2007). Keeping all this in view, the present study aims to outline the aspect of environmental turbulence and how it can influence firm performance.

On a higher note, ET outlines a holistic function that facilitates in assessing the environment to ensure there are no uncertainties. It is a function that highlights threats, risks in the environment that could possibly affect the organizational objectives and performance prospects (Calantone, Garcia, & Dröge, 2003). The idea of ET outlines a generalized scale for assessment and prediction of any uncertainties in the environment that may result in creating hindrances for organizations towards their achievement of wider organizational targets. In the view of Johanesson and Palona (2010) it is a highly critical uncertainty identification process which can be of great value for an organization to sustain in the existing marketplace. Accordingly, ET is noted to be able to influence the performance of firms. Hence, examining this phenomenon within the Jordanian context would be a worthwhile effort in terms of theory and practice.

While extant empirical submissions and industry opinions have been noted for the ability of environmental turbulence to be able to affect firm performance, this relationship can be better understood via other mechanisms. One of such mechanisms is with the use of internal control systems. Accordingly, internal control is a holistic system that lets managers and organizations to assess how effectively business and functions are operating and to what extent the resources are being appropriately used (Shannk et al., 2012). Such systems are significant in enabling organizations to work with consistency and ensuring that there are no major flaws in the core operations of the business (Masa'deh et al., 2015; Mahadeen et al., 2016). In sum, internal control system can act as healthy cross check mechanisms for managers to ensure the resources are appropriately allocated and utilized and programs are operating to achieve the desired organizational objectives (Al-Syaidh et al., 2015; El-Masri et al., 2015).

Undoubtedly, effective internal control system is a cornerstone of successful management, and thus the success of the firm's performance (Badara, 2015). In response to rapid developments in business environment, many business organizations have become faced with serious challenges, particularly with the recent financial crises and the collapse of many giant company's due to ineffective internal control systems (Philee, 2010) which has the ability to enhance organizational performance through improving policies, procedures and practices that are used to detect or prevent errors (Amponsah, et al., 2015).

Based on the above submissions, this study intends to examine the relationship between environmental turbulence and firm performance. Also, the study is to examine the moderating role of internal control systems in further understanding the above relationship in the Jordanian setting.

2. Literature Review

According to Hussein, Mohamad, Noordin, and Ishak (2014), over the past three decades, nearly in the core arena of research in accounting domain, firm performance has become an important topic. This is because it can be termed as a holistic process whereby the organization focuses on its core work prospects and regular operations for specific outcomes. There is a lot of debate pertaining to how and what are the dynamics of organizational performance due to which there are no mutually agreed definitions available amongst the scholars in this regard.

In the global economy, organizations need to work on developing a competitive market position to boost profits and remain competitive (Dutta and Radner, 1999). In this, performance rubrics offer mechanisms and guidelines for businesses to responsively handle their financial and non-financial prospects. Moreover, accountability significantly rises when work tasks or projects are backed by robust strategies which collectively result in providing greater service and yielding customer satisfaction. Hunt and Morgan (1995) have outlined that every organization views its financial performance as the far most important area of focus whereby, all other prospects are secondary in nature and rely heavily on financial outcomes. This explanation can be understood with the explanation of Waddock and Graves (1997) who asserted that the backbone of all business functions because of liquidity and resource significance is financial performance which can be driven only through effective strong financial outcomes. Holbeche (2005) on the contrary, suggests that managers are more focused towards creating a balance between financial and operational performance prospects. In the views of Mat and Smith (2014), conventional performance measurements are not catering to focus on competitive environment assessment as organizational performance is dependent upon different organizational systems and situational factors. In the views of Sarwoki, Sarwoko, Surachman, & Hadiwidjojo (2013) the quantitative predictors like profit, productivity, ROI, Sales and qualitative predictors like knowledge, skills, business expertise, often end up in limitations when assessed individually. Based on this, scholars have suggested that financial and no-financial performance prospects should be catered for responsive results (Agbim, Oriarewo, & Zever, 2014).

According to Joshi and Campbell (2003), environmental turbulence refers to the extent and measure of shift in the business environment and its condition of the relationship between success of a product and financial performance. In broad, environment turbulence denotes to the unpredictable context of the competitive strategies and developments in the customer preferences that lie underneath the existing technology and the launch of new technology (Ramírez & Selsky, 2016).

Accordingly, turbulence in management literatures is explained as complications in the specific setting which is viewed are unique prospects of ambiguities in the environment. This uncertainty refers to unusual changes occurring due to sudden alterations in competitors, legislations, products, and technology of the environment an organization operates in (Chen, Neubaum, Reilly, & Lynn, 2015).

Environmental Turbulence according to Hamad. (2016) comprises of environmental dynamism, environmental prediction and environmental complexity. Keeping this in view, the present study aims to examine environmental turbulence based on these variables (Sicotte et al., 2012) to examine environmental turbulence and how it can influence non-financial performance of a business set up.

ET is principally concerned about the unique environment whereby, there is a preference to technological advancements and new products with ever evolving competitive market dynamics. Such an accelerated environmental turbulence often ends with alterations and developments in technology, market operations, competitive factors and regulations. Those items are considered as ET on account of the dynamism,

hostility and heterogeneity aspects, which might result in more uncertainty (Zhang &Duan, 2010; Tsai, & Yang, 2014; Sundqvist et al., 2012). This concept and belief encourage many researchers to find how, when, where and why ET affect organizations performance (Wang & Fang, 2012; Shahet al., 2016, Johannesson & Palona, 2010; Oke, Walumbwa, & Myers, 2012; Harrington, Lemark, Reed, and Kendall ,2004). For example, previous empirical researches have investigated the impact of environmental turbulence on performance across the US enterprises operating in the industrial sector (Harrington, Lemark, Reed, & Kendall, 2004). Accordingly, Kuivalainen, Sundqvist, Puumalainen, and Cadogan (2004) studied the small and medium enterprises to examine the relationship of environmental turbulence on international performance and found a positive association in this regard.

In addition, internal control systems provide managers with reasonable assurance that the basic objectives of management will be achieved (Postan, 2010; Mawanda, 2008; O'Leary et al., 2006; Kiabel, 2013).According to The International Federation of Accountants (IFAC, 2012a) the best security feature than an organization could possibly implement in order to ensure responsive business performance is the internal control system. This can be conveniently understood by the following example. Top authorities of any business are responsible for handling financial matters which also cater to financial statement, credit information and so on. Therein, a healthy internal control system would be an essential to ensure effective financial reporting. Likewise, the system would help in keeping a track record of what is happening thus, minimizing faults and maximizing the appropriate usage of resources. In parallel, an internal control system would also facilitate in harnessing compliance, rules and follow up of regulations.

Henceforth, a strong internal control system would be an ideal entity for any business to ensure its progress in an effective and efficient manner. Organizational performance can be maximized at a significant level through bring internal control systems in place whereby, organizations with weak ICS can considerably damage their value and market share (Chirwa, 2003; Tseng, 2007; Greenley and Foxall, 1997).Several measurement scales have been developed to assess the internal control systems and its sub factors like risk management, information and communication, control management and so on (Njoki, 2015; Al-Thuneibat, 2016; Njeri, 2014; Muraleetharan,2013; Ejoh & Ejom,2014; Oppong et al., 2016).

3. Conceptual Framework and Hypotheses Development

The conceptual framework is designed in the present study pertaining to the relationship between environmental turbulence and internal control system in connection to firm performance. The underscored framework outlines environmental turbulence as an influencing component whereby, internal control system acting as a buffering energy towards its relationship with firm performance. To a major extent, the present study attempts to highlight critical gaps in the grounds of critical literature appraisal to explain how firm performance could be potentially predicted through these components. Figure 1 presents and elaborate further the conceptual framework of the study.

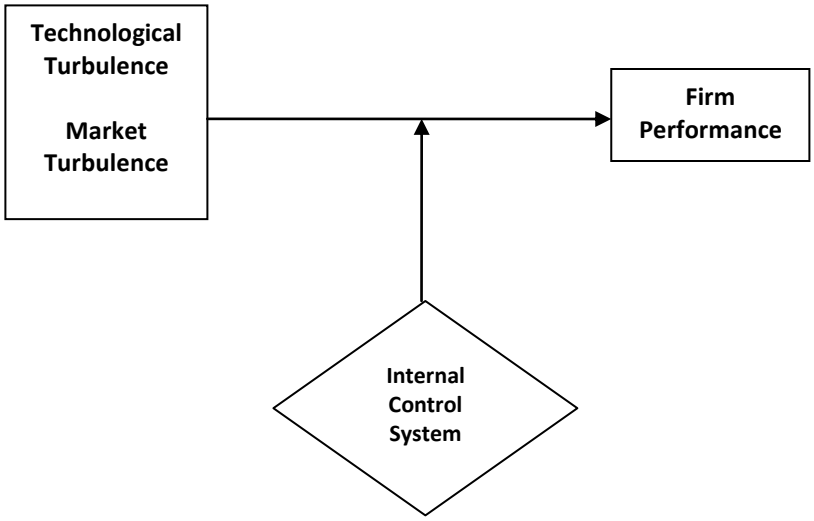

Figure 1: The Conceptual framework of the Study

3.1 Environmental Turbulence

Prior literatures have highlighted that environmental turbulence enhance firm performance (Harrington, et al,2004,). In the arena of contingency theory, the component of environmental turbulence can assert as the process that reverses or modifies the impact of predictive factors on firm performance. Accordingly, ET has a considerable potential to influence the capacity of a moderator as well (Chi & Sun, 2012; Wang & Fang, 2012; Zhang & Duan, 2010). Moreover, the negative consequences of ET on firm performance often result due to not forecasting it (Wang & Fang, 2012). Based on the foregoing, and the literature review on the environmental turbulence and firm performance, the following hypothesis is offered:

H1: The Environmental turbulence (Technological Turbulence, Market Turbulence) positively influences firm performance

3.2 Internal Control System

In this aspect also, prior studies have highlighted that internal control objectives are interrelated and work as forces to enhance corporate performance (Hussain & Bhatti, 2010; Ramlall, 2009; Rogers & Costello,2008; Altamuro & Beatty,2007;Chirwa, 2003). Wijewardena et al. (2004) documented that there is a positive relationship between internal control complexity and performance. Brown et al. (2008) suggested a positive effect of internal control regulation on performance; for example, he stated that German firms experienced a frequency of small positive earnings, consistent with less earnings management. Dechow et al. (2011) documented that both of financial and non-financial measures of performance are deteriorating. This conclusion seems to suggest that bad internal control which results in a deteriorating condition of earnings management will result in deteriorating performance. Mawanda (2008) documented a significant relationship between internal control systems and financial performance in institution of higher education.

Though, paucity of empirical evidence is available pertaining to how and to what extent the regulation of internal controls can lead towards enhancing firm performance (Ashbaugh-Skaife et al., 2008; Jensen, 2011). Taking an example, Jensen (2011) has asserted that over the last years, political, technological, economic as well as regulatory prospects are evolving continuously whereby; internal control systems have remained less successful in making an effective impact on the growth factors of the business. Accordingly, Jeffrey et al. (2007) has asserted that firms not performing well may also be not capable of making responsive investments towards bringing robust internal control in the business. Healthy internal control needs to have both financial as well as management time, efforts and focus in order to provide

robust returns and results to the business in the long run.

Within the literature, scholars have also pointed out that firms at times grow exponentially because of good market position, but internal control system and their strong development requires time and effort (Kinney & Mcdaniel, 1989). For this, workforce, operational and procedural structures and technology are essentially required to be aligned with internal controls to ensure growth of the firm. Notably, Krishnan (2005) has asserted that losses can be responsively handled through reporting the internal control fault or issues to audit body. Ideally, the desired state is less internal control pitfalls in order to ensure strong financial position of the company. The inconclusive results regarding the interaction between internal control and firm performance lead us to draw the following hypothesis:

H2: Internal Control System has a positive effect on Firm Performance.

3.3 Internal Control System as a moderating effect between environmental turbulence and Firm Performance

In the relationship between environmental turbulence and firm performance, environmental turbulence is the predictor variable and firm performance to be the dependent variable. However, it is expected that the internal control system will have an influence on this relationship. Accordingly, the aim of this paper is to explore what effects severe turbulence in the external environment has on internal control systems in companies. We report the results of an empirical study focusing on the effects of severe environmental turbulence following a large-scale economic crisis on the developments of internal controls A few researchers have looked at the relationship between environmental turbulence and internal control system. However, the findings of these studies are inconsistent. The frequent evolution in internal and external environments suggests that there will be a major alteration that the firms are to encounter. Though, it is not feasible and possible to update the systems in totality yet still; constant alterations would be necessary and require as well (Otley & Soin 2014). Notably, there are studies and scholarly references underlining the need to examine management accounting and its controlling due to the recent crisis (Van der Stede, 2011).

These evidences thus outline that internal control systems can be responsively designed to address crisis hit enterprises. The literature on control system has underlined that behaviors have become more important to control external disruptive occurrences such as the financial crisis in order to strengthen their internal controls.

That is, environmental turbulence must be able to communicate as well as articulate the way in which their vision is translated into operational objectives, through the use of the internal control system are used in most large firms to communicate a firm's goals and objectives through the firms.

In essence, when there is no environmental turbulence, in addition to a strong ICS, then there will be good firm performance. In this case, accountants who work under environmental turbulence (supervisors and managers), and with a strong ICS should be more willing to contribute to the performance of the firm performance. Therefore, the proposed study will be investigating how the combination the quality of internal control system and environmental turbulence together to create influence a firm's performance. Nonetheless the robustness of internal control audit procedures and leadership styles are some of the fundamental factors of internal control systems, we are interested in deploying to outline a much greater influence on and how they collectively performance of a firm. Henceforth, based on these arguments, the following hypothesis was formulated:

H3: Internal Control System positively moderates the relationship between environmental turbulence and firm performance

4. Proposed Method

It is recommended that future empirical studies on the proposed framework can use survey research design. Preferably, the unit of analysis should be organizational, because these sectors have a high significance as the Jordanian economy relies heavily on the revenues generated from them. Accordingly, the country also holds a strategic vision for these sectors. Because this study assessed the influence of environmental turbulence on firm performance through internal control system for the organizations, Therefore, firms were considered appropriate as units of analysis. In addition, the questionnaire instrument would be appropriate for data collection from the target respondents which comprise of the top management such as, department head, controller, branch manager and management accountant. There are 253 private listed companies across the country comprising of three sectors: financial, industrial and service sector. Since the type of companies are heterogeneous stratified simple random sampling technique is deemed appropriate in selecting the most appropriate sample size for fair representation and generalizations. Table 1 below presents the overview of the number and types of private listed companies in Amman stock exchange - Jordan.

Table 1: Detailed Sector Distribution of ASE Market

Sector of the Companies	**Number of Companies**
Financial	39
Service	149
Industrial	65
Total number of Companies	**253**

Source: Amman Stock Exchange (ASE) website.

5. Conclusion

The idea of firm performance has received tremendous empirical attention over the past decades, particularly in the corporate finance literatures due to the recent global financial crisis. The crisis and critical occurrences across the globe have shaken investor motivation and reliance on financial reports. Thus, environmental disturbance and assessment of internal control systems has become increasingly important to help understand and better comprehension as to how firm performance could be effectively enhanced. Past studies have outlined that environmental and technological turbulence have marked a significant impact in terms of monitoring role. In the similar fashion, control systems that rely only on the streamlined meeting patterns often result in higher prospects in terms of the responsibilities. Accordingly, the availability of corporate level investors helps to foster governance activities and quality based information systems. Likewise, the paper has outlined that greater performance at the firm level can be considerably attained through strengthening internal control systems. In particular, the paper has outlined the importance of examining monitoring procedures and prospects through proposing a conceptual framework which is in line with past research. On a higher note, the current study has proposed notable elements that could help enterprises to resolve their performance problems in a much more structured manner.

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