

INSTITUTIONAL PERSPECTIVE OF CHANGE IN MANAGEMENT ACCOUNTING SYSTEM: A CASE STUDY APPROACH

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Abstract

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The objective of this study is to examine the drivers of change in the management accounting system in a large manufacturing Libyan-Italian joint-venture public company (LIJV). To achieve this objective, a qualitative case study research is adopted. The research data were gathered by conducting 17 semi-structured interviews with the managers and senior staff of the case company. The data collected from the interviews were supported by documentary reviews and observations. The findings of this study indicate that changes in management accounting systems in the company are attributable to institutional factors, competitive pressures, and market forces. Specifically, isomorphic institutional pressures (i.e., coercive, mimetic, and normative isomorphism forces) appeared to be the main drivers of management accounting system change. These findings are consistent with Zoubi's (2011) findings. Additionally, our findings reveal that the primary sources of the barriers to management accounting change include: 1) the nation's regulations and laws, 2) management misconduct and corruption in management and financial activities, and 3) company managers' resistance. Drawing on the new institutional sociology (NIS) theory, our case findings provide a comprehensive understanding of the change process in management accounting systems by focusing on the role of market pressures, institutional pressures, and intra-organizational power. The contribution of this research is the improved utilization of NIS in explaining the change in management accounting.

Keywords: Management Accounting Change, Institutional Theory, Joint-Venture Companies, System, Libya

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1. INTRODUCTION

Over the last four decades, researchers, as well as accountants, have discussed the appropriateness, features, and role of management accounting systems in firms. This debate has escalated as a result of the significant changes that have occurred over the last decades in the organizational environment (Jones, 1985; Innes & Michell, 1990; Libby & Waterhouse, 1996; Burns & Scapens, 2000; Alkizza, 2006; Busco et al., 2007; Jansen, 2011; Busco & Scapens, 2011; Youssef, 2013; Abdalla & Siti-Nabiha, 2015; Alsharari et al., 2015; Lasyoud & Alsharari, 2017; Alawattage et al., 2017; Alsharari & Lasyoud, 2019).

During the current study horizon, Libyan organizations operating in a non-enabling institutional environment are largely affected by outside factors, namely social, legal, political, and economic influences. Therefore, such factors are also important to the Libyan state-owned manufacturing companies' management accounting practices, including the Libyan-Italian joint-venture public company (hereinafter, LIJV¹).

The current study concentrates on management accounting change systems (MACS) in huge Libyan governmental enterprises. These changes are perceived as reactions to the Libyan economic shift from a centralized to a market mechanism and the political shift that recently occurred in Libya after the Arab Spring in 2011. Crucially, this study examines the management accounting changes that fall under the Libyan transformation sphere with an emphasis on key MACS elements, including plan, control, costing, direction, and decision-making. It also seeks to analyze the institutional determinants of MACS changes in a Libyan manufacturing firm between 2003 and 2015. Specifically, we focus on the management accounting shift's nature to identify factors at the organizational level that contribute to these changes in management accounting. The study also examines the change process in MACS in the LIJV. This study mainly draws upon the new institutional sociology (NIS) view of institutional theory (DiMaggio & Powell, 1983, 1991) to examine the national-level and organizational-level determinants of MACS' change in a non-enabling institutional environment, namely Libya.

We have chosen LIJV due to its massive economic contributions to the Libyan economy in view that it supplies around 90% of the market of trucks and buses. It is the only manufacturer of these products in Libya; and, as such, enjoys significant access to a huge market. Nonetheless, the company is operating competitively because of rivalry from similar products that are imported by private businesses.

For this study, the following questions are proposed to be answered:

RQ1: What are the management accounting changes that took place in the LIJV Company?

RQ2: What are the reasons behind these MACS changes?

RQ3: Are there any barriers to a management accounting change that have been experienced in the LIJV Company?

By answering these questions, our study adds to the current institutional theory debate by exploring the national-level and organizational-level enabling and hindering factors of MACS changes in a non-enabling institutional environment that has witnessed dramatic political changes since February 2011 in Libya.

The remainder of the paper is organized as follows. Section 2 reviews the relevant literature on management accounting change (MAC) and the drivers of MAC. In Section 3, the theoretical model is justified and explained. Section 4 provides the research methodology that was used to achieve the study's objectives. Section 5 presents the results of the study, and Section 6 discusses the empirical results. Section 7 presents the conclusions of the study.

2. LITERATURE REVIEW

At the end of the 1980s, there were debates over the management accounting change process in large organizations following the book *"Relevance Lost: The Rise and Fall of Management Accounting"* by Johnson and Kaplan (1987). The book has become a common topic of discussion among management accountants. In this book, the authors question the appropriateness of contemporary management accounting practices. The management accounting practices are not moving in tandem with the robust growth of the corporate environment. This means the management accounting methods have not evolved enough to keep up with the changes in the organizational landscape and support the increased requirement for data. Johnson and Kaplan (1987) mentioned that firms would usually engage with in-house information systems, whereby they are specifically configured to fulfil outside financial reporting criteria. Therefore, they have made a call for new 'advanced' accounting methods to be developed and implemented. Despite the current criticism that management accounting is losing its relevance in the fast-changing corporate world, the fact remains that robust management accounting systems are crucial for making sound business decisions (Hollihan & Baaske, 2022; Mumani et al., 2021). Furthermore, there are several recent findings that concur with this view (Ndemewah & Hiebl, 2022; Ngo, 2020).

The change in management accounting is perceived as where both the old and contemporary methods are employed. As such, management accounting change happens when new methods are being created and introduced or changed during the utilization of management accounting information provided by the old system. The corporate environment, both external and internal can be molded by management accounting (Moll et al., 2006; Emsley, 2008). Per se, the changes in management accounting could be examined from two perspectives; the management accounting process itself and the effect of change in management accounting on a firm's transformation (Taipaleenmäki & Ikäheimo, 2013; Rom & Rohde, 2007).

The transformation in management accounting has become a major discussion in many research

¹ For reasons of confidentiality, the name LIJV is used as a pseudonym.

studies over the last 40 years (Jones, 1985; Innes & Michell, 1990; Libby & Waterhouse, 1996; Burns & Scapens, 2000; Alkizza, 2006; Emsley, 2008; Jansen, 2011; Youssef, 2013; Abdalla & Siti-Nabiha, 2015; Alsharari et al., 2015; Lasyoud & Alsharari, 2017; Hoozée & Mitchell, 2017; Alsharari & Lasyoud, 2019). Many studies have mentioned the changes in management accounting for advanced economies, but there are few studies in emerging economies. Few studies have addressed the role of the business landscape in management accounting (Innes & Michell, 1990; Libby & Waterhouse, 1996; Sivabalachandran & Gooneratne, 2023). The business landscape has been classified into *outside* or *national-level factors* (environment) and *in-house* or *firm-level factors* (organization). Prior management accounting studies have recognized the variables that result in changes in management accounting. However, explorations of the magnitude of every variable in a business's management accounting control systems (MACS) are yet to be conducted.

In the context of Libya, not much research has considered management accounting's types of changes or the change's characteristics themselves. In Libya, very few studies have been done on management accounting change (Alkizza, 2006; Zoubi, 2011). Research on MACS changes among Libyan public industrial businesses in their dynamic business landscape is virtually non-existent. Therefore, this insufficient knowledge in the change of management accounting creates the need to examine and understand the MACS practices in emerging economies, such as Libya.

In addition, some studies have adopted both quantitative and qualitative research approaches (Gzema, 1999; Shareia, 2006; Fakhri et al., 2009; Zoubi, 2011; Kalifa et al., 2020). For instance, Gzema (1999) analyzed the management control in Libya's oil industry, employing a questionnaire survey as a quantitative method to collect the data. The study shows that the various institutional practices do have an impact on the management control system. Similarly, this study indicates that national-level (external) factors, such as social considerations, political stability, and embargos, have a huge influence on the shape of management accounting systems in oil companies operating in Libya.

Lasyoud et al. (2018) stated that management accounting is a group of institutional and social practices that need analysis and interpretation of the dynamics between firms and socio-economic dimensions. The research on MACS has been largely motivated by Johnson and Kaplan (1987), who mentioned that there are not many changes in the management accounting system and practices for the last several years. Consequently, many studies have been carried out in relation to management accounting's evolving nature, but their findings are inconclusive (Burns et al., 2003; Busco, 2006). Similarly, the impact of digitization adds more to the complexity of the inevitable change to the traditional management accounting function as new roles and opportunities come to the fore (Schäfer & Brueckner, 2019).

In further research, Zoubi (2011) investigated management accounting reform processes in two private Libyan manufacturing companies. The research also analyzed managers' views towards introducing the contemporary management

accounting system. In addition, it analyzed the effect of institutional variables on the management accounting system. The study utilized hybrid technology — the structure of new institutional sociology (NIS), old institutional economics (OIE), and power mobilization — to describe Libyan companies' shifts. In addition, he employed data collection triangulation techniques, such as document review, observations, and interviews. The study found that companies' goals had fully transformed into economic-based from the previous social-based. Similarly, institutional elements impact the management accounting system, i.e., post, during, and pre-privatization exercises. The study also highlighted some obstacles to the transformation when the firms wanted to utilize the information technology (IT) system.

Although prior research concentrates on exploring the consequences of the MACS change process (Alkizza, 2006; Zoubi, 2011) using OIE and NIS, there is no study that examined the improvements or other forms of adjustments in management accounting and control systems, especially in the truck and bus industrial sector. Therefore, this study uses a case study methodology to address the current dearth of management accounting research in developing economies by investigating the changes in management accounting at LIJV Company in Libya.

In the current study, change is categorized into five types: 1) addition, 2) replacement, 3) output modification, 4) operational modification, and 5) reduction (Chanegrih, 2008). Changes applied in the management accounting systems in the LIJV Company will be examined and analysed based on this typology of change of five types.

3. THEORETICAL FRAMEWORK

Institutional theory stands as a useful analytical method for explaining the effect of regulatory pressures on organizational strategies (Raynard et al., 2016). The present study introduces how management accounting change is applied from the institutional theory perspective. This perspective is used to define and interpret institutional pressures affecting the adoption of MACS practices by the LIJV Company.

The strive for organizational and political legitimacy has resulted in institutional isomorphism. It has been proposed by DiMaggio and Powell (1983, 1991) that institutional isomorphism has three mechanisms (isomorphic pressures), which will lead to change. *Coercive isomorphism* is the result of both informal and formal pressures forced upon a corporation by other organizations; whereby the corporation relies on, or by societal anticipation where the corporation is operating (examples, country's regulations and laws, political and socio-economic influence, investors, supplier connection, and other stakeholders). The study also mentions that coercive isomorphism "stems from political influence and the problem of legitimacy" (DiMaggio & Powell, 1983, p. 150). Therefore, the external elements are propelling corporations to embrace certain internal processes and structures (Moll et al., 2006).

The pressures received by a corporation to undertake identical practices and procedures of

other successful and legitimate organizations of similar industry is called *mimetic isomorphism* (Moll et al., 2006). Here, companies will try transforming their internal practices and structures to duplicate those of other organizations (Moll et al., 2006). This type of isomorphism pressure is the end-product of “standard responses to uncertainty” (DiMaggio & Powell, 1983, p. 151). The researchers also emphasized that the identical corporate structure of those organizations is a result of limited options. As an example, huge corporations utilize the services of certain big consulting firms, in which these firms would spread their organizational models to a few corporations (DiMaggio & Powell, 1983).

Normative is the third concept of institutional isomorphism. It proposes that the main source of organizational change (inclusive of management accounting changes) is ‘professionalization’ by way of professional accreditation, certification, or training (DiMaggio & Powell, 1991, p. 66). The sources of normative isomorphism include professional organizations’ membership, formal education, and legitimate knowledge furnished by academics (DiMaggio & Powell, 1983, 1991). These professional bodies could motivate corporations to undertake certain practices and structures or transform current management accounting practices (MAPs). It is also proposed by DiMaggio and Powell (1991) that the process of staff screening encourages normative isomorphism. As an example, recruitment of workers of similar industries or high-level positions with preferred backgrounds, states, or departments.

In this study, the following theoretical propositions were formulated:

P1: Coercive pressures is one of the main drivers of management accounting change in the LIJV Company.

P2: Mimetic isomorphism will also be considered as one of the main drivers of management accounting change in the LIJV Company.

P3: Normative pressure will also seem to be one of the main drivers of management accounting change in the LIJV Company.

The new institutional sociology (NIS) theory assumptions are used to explain the resemblance of firms operating in the exact environment, social sector, or organizational area (Scapens, 2006). The findings rely more on external and not internal variables (Moll et al., 2006). Contemporary institutionalists, therefore, assume that the outside environment is influencing internal activities. It explores the reason and method of MACS designs and operations in Libyan companies, and it offers an intuitive structure for MACS procedures and contexts. The structure is built from observations on the facets of NIS management accounting perspectives that describe the relationship between the corporate context and actions. The NIS viewpoint has been selected to be the theoretical framework in providing an interpretation of the phenomenon being investigated in a broader context, following the proof provided by past studies, and deemed applicable (DiMaggio & Powell, 1983, 1991; Greenwood & Hinings, 1996; Burns, 2000; Burns & Scapens, 2000; Hussain & Hoques, 2002). According to Tsamenyi et al. (2006), “NIS is particularly relevant for analyzing organizations that are confronted with uncertainties and, as a result,

compete for political and institutional legitimacy and market position” (p. 410).

Nonetheless, several research studies on management accounting (Collier, 2001; Dillard et al., 2004; Tsamenyi et al., 2006) have mentioned NIS’s limitations. It does consider institutionalization from the stresses of outside conditions and the behavior of corporate players. Collier (2001, p. 468) mentioned that accounting clearly involves the power association in the environment of organization-institution.

This paper selected the case study approach to gather the information from the LIJV as a qualitative tool. Thus, the NIS method is more suitable for this paper. Libyan organizations, which play a crucial role in Libyan society, are functioning in an unstable environment with outside pressures such as culture, society, law, and politics. Thus, the MAPs of the LIJV Company production firms are also likely to be relevant. A study by Tsamenyi et al. (2006, p. 410) mentioned that NIS is appropriate for analyzing companies facing uncertainties, where this will consequently cause competition on institutional and political fronts as market positioning.

4. RESEARCH METHODS

The current study uses the qualitative research methodology because it is the most suitable methodology for conducting a case study. This case study explains the transformation in management accounting systems. Generalization is not the primary purpose of researchers using a case study (Abdalla et al., 2022). However, the case study is useful in explaining different phenomena, such as the management accounting change in business organizations in Libya during the dynamic period in political and social landscapes. Therefore, to attain the study’s objectives, a firm operating in the trucks and buses sector was chosen for the case study. The NIS theory was employed in interpreting the results of the study. For the current study, data were collected using different methods, which are semi-structured interviews, documentary analysis, and observations.

4.1. Data collection methods

4.1.1. Interviews

The semi-structured interview approach was used to gather data on the opinions of several directors and senior staff of the case company. Seventeen direct interviews with executives, department heads, and accountants of LIJV Company were conducted (see Table A.1 in Appendix). The participants were chosen based on their experience, knowledge, and accessibility. The researcher generally utilized the telephone to arrange the meetings. For interviews that usually lasted for about one hour, Prior to each interview, the researcher had gained the respondent’s agreement to record the interview, and ten interviewees had agreed to the use of a tape recorder. The researcher responded during the discussions with the remaining participants. Meanwhile, during other interviews, the interviewer took notes for the enquiries.

4.1.2. Documents

In this study, documents of the LIJV Company were analyzed, including the latest and previous LIJV organizational structures, contracts, rules, regulations, job descriptions, reports, financial statements, governmental regulations, production reports, and many more. Due to limited access to documentary records, the documents reviewed and analyzed only cover the period from 2003 to 2015.

4.1.3. Observations

This study employed participant observation. For instance, the first author stayed and investigated the studied company for more than six months. He discovered that the company's General Manager and the General Director of Financial Operations were the main management personnel, while the directors on the Board had limited function in control and decision-making.

After data completion, the data analysis process was initiated. This process included recording the interviews, documenting the findings, and codifying the statements. The transcription of the interviews is the second part of the process. All the interview sessions were carried out in Arabic. The transcripts must therefore be translated into English.

5. FINDINGS

The management accounting change is categorized into five types to interpret the results. Those categories are addition, replacement, output modification, operational modification, and reduction. In the LIJV Company, its management accounting change has two forms. The first type is that new management accounting systems were introduced, which were not similar to old ones. This change includes introducing a strategic planning system, marketing costs directly allocated, and a quality management system. Meanwhile, the other type of reform to the management accounting systems is that the management accounting information was modified, including budget estimation and reporting system.

5.1. Introduction of new management accounting systems

The change was made by introducing modern management accounting systems to the LIJV Company. Specifically, these new systems are strategic planning, performance measurement concerning customer contentment, marketing costs directly allocated, and quality management system (QMS).

5.1.1. Strategic planning system

Before 2009, the LIJV Company did not have a formal strategic planning system. It changed in April 2009 by introducing a strategic planning system by the board of directors to cope with the economic reforms that occurred at that time. The Director of Strategic Planning revealed that the LIJV Company had engaged several specialists in strategic planning. The Director of Strategic Planning

also asserted that implementing strategic planning processes is essential for the company to survive in the current aggressive and commercial environment.

5.1.2. Quality management system

The quality control system (International Organization for Standardization — ISO 9001:2000) was formally defined in writing in the quality control administration (ISO, 2000). The above-mentioned International Standard outlines the standards of the QMS. It is stipulated that an organization: 1) has to show its capability to reliably deliver customer service products, and satisfy the relevant legislative and regulatory guidelines, and 2) seeks to improve customer satisfaction by having a successful application of the system, which includes processes. The design and execution of QMS are informed through a) the business environment, transformation to it, and the associated risks; b) different requirements; c) unique goals; d) product; e) process; and f) organizational structure and size. The QMS has been adopted in the LIJV as one of the new MACS.

One of the improvements made in recent years is the implementation of QMS (ISO 9001:2000). Despite the existence of a quality department before 2004, the organization had never used the ISO system. In 2004, ISO introduced QMS to businesses, whereby it causes reports to be modified to a specific form using charts and statistical methods in reporting format (approximately 30 or 40 pages). Before the introduction, every office or service unit of the company had its own reporting format. The new reporting style was introduced to measure the current year's results against the previous year and measure the performance over six months. The new technique, introduced in 2004, focused on the facets of regulation. However, the financial facet did not fall within the ISO scope. This could be shown in the non-renewal of the ISO certificate, as highlighted by the quality control officer:

"Due to the event in 2011 in Libya, which was the rebellion against the Al-Gaddafi government on 17th February, the ISO certification was not renewed. But the company is planning to renew it soon, particularly since the situation in Libya after 2012 had been positive. Also, we can presume that the condition in upcoming years will be improving" (Director of quality control, Personal communication, February 2, 2014).

5.1.3. Performance measurement in terms of customer satisfaction

After the 2011 Libyan revolution, the LIJV manufacturing market experienced significant changes, which necessitated companies to apply performance measurement systems to monitor customer satisfaction. The interviews revealed that in the past, companies did not give their utmost attention to achieving customer satisfaction. This is because the LIJV Company was operating in a monopoly market, meaning that it controlled the truck and bus manufacturing and services market. Later, other vital players emerged; and thus, the market was transformed from a monopoly to a competitive market. Competition made it essential for the LIJV Company to consider customer

satisfaction and strive to maintain its presence in the market by keeping its customers satisfied. It was revealed by the director of marketing that the market analysis department had conducted surveys to obtain its customers' opinions and comments regarding the services provided by the LIJV Company.

5.1.4. Direct allocation of marketing costs

In 1976, the LIJV Company was established. The company had always used a costing system that was not based on marketing costs in view that it was operating in a monopoly market. However, the emergence of competitors in the market forced the LIJV Company to add a system where marketing costs were directly allocated to its existing costing system in 2012. At present, the manufacturers of trucks and buses are competing in an open market with the existence of private-sector competitors.

5.2. Modification in the management accounting information or outputs

Modifying the management accounting information or outputs usually happens in two forms: adding or changing the management accounting outputs, like the budget-based information. In the LIJV Company, budget estimation and the reporting system were modified.

5.2.1. The estimated budget

Some of the people interviewed said that several budgetary changes had been made due to competition and changes in the rules and regulations of the Libyan Government, particularly during the last few years. As an example, the director of cost and business management confirmed that the goods delivered by an overseas supplier, i.e., the supplying of semi-finished materials to be assembled and not disjointed, are some of the things that were adjusted in the budget. Therefore, the change will be in accordance with the data available in the estimated budget. By saying this, he affirmed:

"During the preparation of budget estimation, the data of the following must be considered. The supplies received from abroad, i.e., material which LIJV will process; parts of disjointed materials; and materials which LIJV will manufacture. All of these are considered during budget estimation?" (Director of cost and business management, personal communication, April 2, 2014).

The cost and business control director stated that LIJV was facing a financial crisis and that a crisis would emerge. Subsequently, the company changed its procurement strategy, i.e., LIJV was almost ready to import or deliver materials. The LIJV Company had a new vision. There are pros and cons of changing the direct supply strategy. The instances of such benefits include the quick and cost-effective sales and installation process. Depreciation costs and other operational expenses will also be reduced. Nonetheless, it has drawbacks, for example, social consequences. This means a simple workforce is required for disjoint materials or part assembly, such as 200 people out of the 770 workers. However, how about the others? If

the goods are manufactured like before, more jobs will be available. In that situation, the State of Libya or the Minister of Industry would have to bear the company's burden in creating jobs.

5.2.2. Reporting system

The company's reporting system has experienced some changes in all the departments. The ISO reporting system was adopted in all the administrations of LIJV Company in 2004. The company ensures that international standards (ISO 9001:2000) are met by preparing all the reports according to the ISO reporting system.

5.3. Factors triggered changes

The LIJV Company was affected by different factors leading to management accounting practices and systems change. These causal factors include institutional factors and market and competitive pressures.

5.3.1. Institutional factors

The LIJV Company applied changes to its accounting systems in response to some institutional elements, including political pressure and organizational legitimacy, changing governmental laws and directives, and pressures of keeping up with leading organizations by adopting their best practices.

5.3.2. Political pressures and organizational legitimacy

During the interview, the LIJV Company's financial consultant highlighted that between 1970 and 2011, Libya was under the rule of Al Gaddafi, whereby certain formulated policies had failed the country. Al Gaddafi's main concern was political control, and he never cared about the country's economic conditions. For example, constructing trucks and buses factory was mainly for bragging, not for achieving economic benefits. The financial consultant added that when an economy is led by politics, the country's economy is doomed. He also stated that since the Libyan revolution (February 17, 2011), the economic and political conditions have not been stable. The political and economic visions of the government were not clear, and these had been detrimental to the MACS of LIJV. As highlighted:

"... the people of Libya know that the past Libyan administration will shut down or start a project anytime they want. The reasons or the objectives were not clear for these actions. Even the availability of a feasibility study could not be confirmed. The officials did it at their own discretion. Also, whether the project is economically or politically motivated is unknown; whether LIJV was planned to be developed over the past years is unknown. As such, politics play a significant role in the company, generally; particularly the management accounting system" (Head of direct materials purchasing department, personal communication, May 12, 2014).

Among the political pressures that LIJV Company faced was the isolation imposed on the country during the 1990s by the US and the UK.

This isolation made Libya unable to obtain the latest technology and managerial practices. The Libyan political system experienced a radical change in 2011, which facilitated competition in the Libyan market. Therefore, the LIJV Company has since adopted a new system in which marketing costs are directly allocated to survive in the modern competitive market. This competitive market had been invaded by private companies, as further emphasized by interviewees:

“Previously, the manufacturing and selling of buses and trucks had been monopolized by this company. This means a Libyan could not purchase a bus or truck from abroad. However, after 17th February 2011, the market was no longer closed. The market is now competitive. The private companies brought second-hand buses and trucks from abroad and sold them inexpensively” (Director of internal auditing office, personal communication, February 1, 2014).

5.3.3. The Libyan government's laws and regulations

The LIJV Company has been affected by the change in governmental regulations that take place regularly. This change occurs due to the issuance of new laws and guidelines or the cancellation of existing laws and guidelines. For instance, the accounting director of the LIJV Company stated that Al-Gaddafi's administration imposed a 10% tax on the firm's products in the early 2000s. The production tax has caused LIJV Company to become non-competitive in the market. Likewise, the 4% customs tax had also weakened the LIJV Company's ability to import machinery from abroad, which negatively affected its manufacturing capacity. Moreover, the financial consultant added that the frequent changes in governmental laws and regulations had also adversely affected the accounting systems and businesses in Libya in general.

The radical change experienced by the country has led to a significant transformation in the businesses and markets in the country. For example, the new laws and regulations governing businesses in Libya, issued by the Libyan National Transitional Council (LNTC), have led to changes in customs fees and taxation system. As such, the LIJV must amend its estimated budgets accordingly.

5.3.4. Addressing market pressure and replicating other companies' best practices

In 2004, the quality management system (QMS) was implemented in the LIJV in compliance with the International Organization for Standardization (ISO 9001:2000). The ISO is working together with the International Electrotechnical Commission (IEC) regarding electrotechnical standardization.

During the interviews, the respondents indicated that the company's management accounting practices are influenced by IVECO, an Italian company that owns 25% of its capital. In addition, the LIJV's management accounting practices are influenced by other Libyan manufacturing companies. The management accounting approach undertaken by the LIJV Company is the same

practices used by other production firms, such as the *Libyan Tractor and Agricultural Commodities Company*, the *Tyres Company*, and the *Libyan Iron and Steel Company (Lisco)*. The Libyan manufacturing companies apply the same practice dominant in the industry and market, as mentioned by the costs accountant:

“Before working in this company, I was with the Tyres Company located in Tajoura (a town in north-western Libya). To my surprise, I discovered that this company employs a management accounting approach similar to my previous work, such as estimated budgets, costing systems, and reporting systems” (Costs accountant, personal communication, April 15, 2014).

5.3.5. The market and competitive pressures

The changed political system triggered competition in the local Libyan market, which necessitated management accounting changes. The LIJV Company experienced changes in its budget, costing, and pricing systems. According to the commercial cost department head, the business environment in Libya experienced a significant change caused by the 17 February 2011 revolution, which dramatically affected the control and management accounting systems. For instance, the LIJV Company started to consider customer satisfaction and directly allocated marketing costs. The LIJV Company also needed a more efficient pricing system to meet the new requirements of the domestic competition.

5.4. Barriers to management accounting change

Many interviewees noticed that LIJV managers and employees had no major objection or resistance to implementing strategic planning and directly allocating marketing costs and QMS. Nonetheless, some of the respondents interviewed, including financial advisers, the director of cost and business management, and one of the cost accountants, suggested that certain possible barriers can be found to hinder the growth of the LIJV and the shift in MACS.

5.4.1. The state's laws and guidelines

The tax enforced in Libya has dramatically affected both the company's forecasted budget as well as cash flows and liquidity. The organization has considered all the issues related to loans, services, and payment of interest. The Company, therefore, invested the expense of the tax in contributing in the form of taxes to fund the State Treasury. The financial consultant mentioned:

“Through the value paid by tax and fees, this firm can increase its activities and develop the production capacity. However, we had not found a solution for reducing tax and fees when we discussed this issue with the Ministry of Industry” (Financial consultant, personal communication, May 28, 2014).

However, political, cultural, and safety issues in the country have an impact on both the growth and security of the laws in the Libyan government.

5.4.2. Financial and managerial corruption

The company's managerial and financial turmoil had resulted in the company bearing increasing debt at an astronomical rate. Moreover, the company had not prepared itself for any changes in the market and country's structure over the past three decades. Hence, it had weak administrative and financial frameworks. This had a devastating effect on the company's control system and management accounting. Previously, there were no rival companies in the Libyan market. However, it changed on February 17, 2011 when the Libyan revolution occurred. The market has since experienced competition. A cost accountant stated that:

"The former managers of the LIJV established firms to be the competitors of LIJV. They are seeking to destroy LIJV economically, where they will buy the company shares at a low price in the future when LIJV sells its shares in the stock market. Through this action, when they procured enough shares, they could sit on the Board of Directors or become the company's managers. As such, their money is used by LIJV to revive the company" (Costs accountant, personal communication, April 15, 2014).

The interviewee also stated that the relationship between the cost control department and the other corporate divisions is dictated by corporate regulations, which are lacking. Therefore, it is believed that the cost management of all departments, such as legal affairs, sales manager, procurement management, and the marketing department, etc., is inter-connected. This is because the cost control department needs very accurate information before the information is submitted to the company's management.

5.4.3. Company managers' resistance

The director of cost and business management acknowledged the firm's willingness to recruit researchers and consultants from other industries in 2009 to improve cost control in the LIJV. In fact, the organization wanted to send employees to take courses abroad for the cost management system. However, this effort has been discontinued; letters were sent to the cost administration staff to confirm that the workers have been converted into a cost management team. Once the system is finished, the organization must setup its cost control divisions. The director of cost and business management added that:

"As LIJV's status is a public firm, the company is not interested in the cost department. As such, the responsibility towards the development of the said department is non-existent. Also, it might be due to the cost involved in the development program will impact the top management's individual goal" (Director of cost and business management, personal communication, April 2, 2014).

However, the management reported that the company could not afford to add any new employees due to the company's financial and business situation. The additional employees will cost the organization additional expenses on wages, furniture, and new office buildings. For instance, cost control allows the department heads and the operations director to have two or at least three offices at their disposal. Matters related to costs are

currently managed by six staff. Based on the latest job description and company structure, the number of employees of the cost department was expected to be 11 persons. Moreover, one of the cost accountants mentioned that the general management of LIJV has not been supportive. The cost accountant mentioned that:

"The General Manager has an engineering background and only has an interest in those engineers of the departments of maintenance, electric and electronic maintenance, engineering, and planning, as well as the work analysis department. All those with those departments were sent for training, but not those involved in cost administration" (Costs accountant, personal communication, April 15, 2014).

Furthermore, the Company has not provided any training for the old and new employees to improve the efficiency of cost accountants. Therefore, all of these factors contribute to the resistance to improving cost structure. This has also adversely affected the cost management team, which cannot contribute to its effectiveness in the operations of LIJV Company.

6. DISCUSSION

There are very few studies in management accounting that consider the characteristics of the changes. Also, many management accounting studies have established various variables that affect the management accounting system. However, none of these studies analyzed the importance of every factor to a company's MACS. In addition, no transport industry-related study was found. Therefore, there seems to be no effort focusing on the changes of MACS in the progressive landscape of Libyan public industrial organizations. Given the lack of information on changing management accounting practices, a thorough study was conducted to explore and comprehend the situation of MACS in an emergent country, namely Libya, where it is practiced in a dynamic economic condition.

The present study emphasizes the changes in MACS used by the LIJV. This is due to the state's economic landscape transformation to market based on the previously central planning. There was also a change in the governmental system that had taken place in Libya in recent years. This study is aimed at analyzing the changes in management accounting from the perspective of transformation in Libya by addressing key MACs from 2003 to 2015. The analysis includes the preparation, scheduling, costing, managing, and decision-making processes and improvements in the above manufacturing company operating in Libya. The research also concentrates on the characteristics of the changes in management accounting and on defining the variables that lead to management accounting changes in the firm selected for analysis.

The projected budget of the LIJV Company was also affected by the government's legislation and regulations. It was noticed that the entire Libyan industrial sector was impacted by political pressures (Coercive pressures). According to institutional theory, the main beneficiaries were the political leaders who had negatively affected the country's economic condition and business environment from

the sudden and continuous changes in laws and regulations (such as taxes).

Also, in 2004, as an effort to boost the Company's competitiveness in the industry, the quality management system (ISO 9001:2000) was implemented in the LIJV Company. The company started to adopt ISO 9001 as a control system to improve its regulatory process and gain higher customer satisfaction. The other form of coercive isomorphism found to be effective in the LIJV Company is competition. Customer satisfaction measurement became a priority for the company only when the market transformed into a competitive one. In light of the NIS theory, the primary beneficiary of the introduction of this performance measurement is the LIJV Company and its management. Also, no unintended consequences were detected from this change.

Coercive isomorphism was also found in the introduction of the cost and pricing systems to the LIJV Company. The Ministry of Industry made this system obligatory for the company. The state forced industrial companies to price their products in such a way that covers the production cost in addition to a minimal profit margin ranging from 5% to 15% as per the instructions of the Ministry of Industry. The Ministry of Industry put coercive pressure on the LIJV Company through this approach. According to the institutional theory, this reformation serves a particular beneficiary's interest and has unintended consequences. During the interviews, it was revealed that the country's economy was altered to serve political interests. Therefore, it can be concluded that this change was for political reasons, which the interviewees did not elaborate on. However, there was an unintended negative consequence on the company's profitability.

Also, it was indicated that the change in the pricing system in the LIJV Company was to cope with the costing system reform. In 2012, the LIJV Company started to apply the marketing costs system. Also, it started to implement a unified reporting system conforming to the worldwide benchmark (ISO 9001:2000), which outlines the quality management systems' requirements. Narrative reports were the norm in the company until 2004 when reports started to be prepared based on the reporting system of ISO 9001. In a way, the change in the reporting system resulted from the coercive pressure on LIJV Company. With regard to the institutional theory, this change did not have unintended consequences and served the interests of the company and the management at that time.

The LIJV Company was also subject to competitive isomorphism, which harmed the company's sales and profitability. This is the outcome of the deregulation made in the nation's economy during the 2000s. The transformation from a monopoly to a competitive market by the emergence of private Libyan companies affected the pricing and cost systems and budget estimation in the LIJV Company. Moreover, strategic planning and performance measurement regarding customer satisfaction have been implemented to support the company's competitiveness in the market. Competition is regarded as a common cause of reform in management accounting systems (Fadaly, 2008). Similarly, the reforms in marketing cost direct allocation systems to the costing system were

undertaken to face competition in the market after the revolution in 2011. From an institutional perspective, the changes that occurred were in the company's interest and the management. In summary, *Proposition 1* is validated, as coercive pressures are considered one of the main drivers of management accounting change in this company.

The LIJV Company was subject to another institutional force: mimetic isomorphism. The LIJV Company is a joint venture with IVECO (25% ownership), an Italian company. Therefore, it has to follow the same management accounting systems and practices. Besides, all the Libyan manufacturing companies must apply a particular costing system as dictated by the Ministry of Industry. That is why a mimetic isomorphism triggered this change. In the same vein, applying computer systems in every department of the LIJV Company was a change caused by mimetic isomorphism. This is because it had to keep up with other companies in the same industry. Based on the NIS theory, the researchers should investigate the primary beneficiary of the change and the unintended consequences. In summary, *Proposition 2* is validated, as mimetic pressures are considered one of the main drivers of management accounting change in this company.

Normative isomorphism was also detected as influencing the change in the LIJV Company. The effects of professionalism and the significance of cultural support are considered normative isomorphism (DiMaggio & Powell, 1991). Professionalism caused reforms in the management accounting systems of the LIJV Company. To achieve the right level of professionalism, the company had hired experts from other nations, namely Egypt and Italy to operate its costing system. In summary, *Proposition 3* is validated, as normative pressures are considered one of the main drivers of management accounting change in this company.

7. CONCLUSION

This study's objective is to investigate management accounting change (MAC) in the LIJV Company. The main form of management accounting changes in the LIJV Company can be summarized into two types: 1) new management accounting systems introduction; for example, quality management system, strategic planning system, performance measurement system, and marketing cost direct allocation; and 2) management accounting information modification, represented by budget estimation and the system in reporting.

In the LIJV management accounting changes are affected by several pressures. First, institutional pressures, such as organizational legitimacy and political pressures, the country's regulation and laws, and the practices of major and successful businesses. Second, the market and competition pressures. For instance, the shift in the country's political system results in increased competition in the Libyan domestic market. Third, company managers' personality is also considered as a factor that leads to the management accounting change.

The main sources of the barriers to management accounting change include 1) the nation's regulations and laws; 2) management misconduct and corruption in management and financial activities; and 3) company managers' resistance.

The study has made several contributions. First, the current study provided additional empirical evidence on the antecedents and determinants of change in MACS among emerging economies in general, specifically Libya. Second, the study results show that reform in MACS is not uniform or homogenous in nature. The empirical results show that the transformation happened to the conventional practices of MACS instead of the contemporary ones. Examples include the balanced scorecard approach and the activity-based costing approach. Third, the present study's theoretical framework has adopted the NIS perspective to explain the results. Here, the NIS interprets how MACS operates in the case Company. It is the NIS researchers' belief that an organization's institutional environment shapes the operation and design of practices such as MACS. The study's contribution is the increased NIS usage in explaining MACS.

However, this study has several limitations. Its first limitation is the concentration on only a manufacturing company operating in the public industrial sector. Therefore, the findings could not be applied to other manufacturing companies. Nonetheless, it must be emphasized that the goal of this study is not of generalization, but instead to provide a general comprehension of the functioning of MACS in LIJV Company. This study has utilized the survey method to enable statistical generalization to other environments. The second limitation is the recording of certain interviews. This

is because there were participants questioning the interviews' confidentiality. Thus, resulting in diminished depth and accuracy of data procured. The third limitation is the short period of examination (6 months) to comprehend the change in MACS. As such, there is a requirement for longitudinal case research with the utilization of the institutional theory method. This is essential for the examination of management accounting changes.

The study also has many implications for further research. First, additional case studies are required to generalize the findings to other Libyan production firms. Future studies may also require using the survey method where more organizations could be examined. Future studies may also examine the changes in management accounting of other industries in Libya (for example, oil, financial, service, etc.). Second, this study area could be reproduced in other emerging economies (single nation or comparison between nations) for further understanding of the effects of country-specific variables (characteristic of a nation) on management accounting and control practices. Third, a comparison of the transformation of management accounting during unstable and stable economic environments but in a similar setting. Lastly, future studies might want to concentrate on other theoretical views in investigating the change process in management accounting; examples include critical theory, agency theory, actor-network theory, and structuration theory.

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APPENDIX

Table A.1. List of interviews in the case company

No.	Position	Interview dates and times
1.	Director of internal auditing office	1 February 2014, 12:00 PM
2.	Internal controller	9 February 2014, 8:00 AM
3.	Director of human resources	9 February 2014, 11:50 AM
4.	Commercial operations General Director	10 February 2014, 7:35 AM
5.	Director of marketing	12 March 2014, 10:30 AM
6.	Director of strategic planning	27 March 2014, 10:50 AM
7.	Director of quality control	2 February 2014, 9:30 AM
8.	Financial operations General Director	4 February 2014, 10:40 AM
9.	Director of production	13 March 2014, 11:15 AM
10.	Director of accounting	14 March 2014, 10:40 AM
11.	Head of balance sheet department	26 March 2014, 12:40 PM
12.	Director of cost and business management	2 April 2014, 11:00 AM
13.	Costs accountant	15 April 2014, 10:00 AM
14.	Director of purchases	2 April 2014, 3:00 PM
15.	Head of overheads and commercial cost control department	5 April 2014, 2:00 PM
16.	Head of direct materials purchasing department	12 May 2014, 3:00 PM
17.	Financial consultant	28 May 2014, 10:00 AM