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Management Accounting Change in Developing Countries: Evidence from Libya

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Management Accounting Change in Developing Countries: Evidence from Libya

Abstract

Purpose - This paper aims to investigate the change in management accounting and control systems (MACS) within two large public manufacturing companies in Libya so - called Trucks and Buses Company (TBC) and National Trailers Company (NTC).

Design/methodology/approach – The paper is based on semi-structured interviews, an analysis of documents, and observations. It draws on New Institutional Sociology perspective (NIS) (DiMaggio and Powell's 1983) as theoretical framework to provide explanations regarding how the MACS in the two companies were shaped by various factors.

Findings - The main factors identified in shaping the operations of the MACS were the need to comply with the political pressures, the Libyan government's laws and regulations, the instructions imposed by the management committee in both companies, leading organizations' pressures (ISO), customer satisfaction (coercive isomorphism), the influence of professional associations (normative isomorphism) and the need to imitate efficient organizations in order to be more legitimate and successful (mimetic isomorphism).

Research limitation/implication - The findings of the study have implications for understanding the operations of MACS in developing countries. Future research could focus on alternative theoretical perspectives for the investigation of the process of change in MACS such as structuration theory, agency theory and actor-network theory.

Originality/value – The proposed theoretical framework provides insights into the process of change by focusing on the interplay between the institutional forces, market forces and intra - organizational power relationships to overcome the criticism of NIS that it downplays the role of market forces and intra - organizational power relations.

Keywords: Change; Management accounting; large public manufacturing companies; new institutional sociology; Libya.

1. Introduction

Change in management accounting can be defined as the ability of management accounting systems to adapt to change in an organization's internal and external environment (Macy and Arunachalam, 1995). Wijewardena and De Zoysa (1999) stated that management accounting should respond to any change in the environment and accountants must make timely changes in their systems if accounting is to contribute more effectively to the success of organizations. It is argued that there is a cause - effect relationship between the business environment and management accounting systems, where any change in the former will result in a change in the latter (Kaplan, 1985; Wijewardena and De Zoysa, 1999). Change in management accounting has increasingly become a focus for research. As Burns and Scapens (2000, p. 3) state, "... [Management accounting change has become a topic of much debate in recent years. Whether management accounting has not changed, has changed, or should change, have all been discussed".

1
2 Despite much debate on this topic, there is no consensus yet as to a clear – cut definition of
3 change in management accounting (Sulaiman and Mitchell, 2005). Indeed, the exact nature of
4 changes has often been taken for granted by most researchers and its definition has been avoided
5 (Quattrone and Hopper, 2001). In general, many researchers have concentrated on change in
6 management accounting as an outcome rather than emphasizing the process involved in
7 implementing or introducing new management accounting systems or in modifying existing systems
8 within organizations (see for example, Innes and Mitchell, 1990; Cobb *et al*, 1995; Libby and
9 Waterhouse, 1996; Williams and Seaman, 2001; Granlund, 2001; Burns and Vaivio, 2001;
10 Kasurinen, 2002; Jansen, 2011, Alsharari et al, 2015). Change in management accounting is not
11 homogeneous. In this respect, Hopwood (1987) argues that accounting is a dynamic and
12 heterogeneous phenomenon, so accounting systems should change over time. He states that
13 relatively little is understood about the process of change in management accounting (ibid). Change
14 has different dimensions or types.
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17
18 Change in management accounting is not a uniform phenomenon. Therefore, one might expect the
19 causal factors of change also to be different and this has indeed been confirmed by management
20 accounting researchers. It is clear that both the external factors (macro - factors) and internal factors
21 (micro - factors) relating to the organization concerned have influenced the recent development of
22 new management accounting techniques (Sulaiman and Mitchell, 2005). According to Shields
23 (1997), the potential change drivers are competition, operations technologies, information processing
24 technologies and organizational designs. These factors have encouraged new advanced management
25 accounting techniques such as Activity - Based Costing (ABC) (Anderson and Young, 2001),
26 Balanced Scorecard (BSC) (Kaplan and Norton, 1992), Strategic Cost Management (SCM) (Shank
27 (1996) and Just – in - Time (JIT) (Kaplan, 1986) to be adopted. Change in the environment also
28 means uncertainty and risk which create a demand for further change in management accounting in
29 the form of non - financial measures (Vaivio, 1999).
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31

32
33 The subject of change in management accounting has been the central issue of a large number of
34 studies for the past four decades (e.g., Jones, 1985; Innes and Mitchell, 1990; Libby and
35 Waterhouse, 1996; Burns and Scapens, 2000; Alkizza, 2006; Yazdifar et al, 2008, Jansen, 2011;
36 Zoubi, 2011, Alsharari et al, 2015). In this respect, much has been written in Western literature about
37 change in management accounting in developed countries and their environments, but relatively
38 little has been written by local writers about accounting change in developing countries (Sulaiman
39 and Mitchell, 2005). Few studies attempted to address the relationship between management
40 accounting and the business environment within which organizations operate (ibid). This business
41 environment is divided into external factors (environmental factors) and internal factors
42 (organizational factors). For more explanation, after reviewing the literature on change in
43 management accounting, the authors identified two relatively neglected areas which provide a focus
44 for this study. First, there is little research which takes account of the nature of change or different
45 types of change in management accounting. Second, several management accounting studies have
46 identified factors that bring about change in management accounting, but have not explored the
47 specific significance of each factor to the organization's MACS.
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51 Nonetheless, there is an increasing interest in research that targets the study of change in
52 management accounting in the emerging and transitional economies in the former socialist European
53 countries (Haldma and Laats, 2002), in Eastern Asia (Hoque and Hopper, 1994, 1997 and O'Connor
54 et al, 2004) and in Africa (Lather and Langden, 2001, Waweru et al, 2004). The common
55

1
2 characteristic of the studies conducted on the emerging economies which distinguishes them from
3 those conducted on the developed countries is their focus on the change in the broad political and
4 economic systems, by considering them as the key factors causing change in the management
5 accounting practices (MAPs). For instance, Luther and Longden (2001) and Haldma and Laata
6 (2002) identified new factors that are more related to transitional and emerging economies such as
7 the legal accounting environment and shortage of qualified accountants. Luther and Longden (2001)
8 also concluded that the benefits derived from MAPs in South Africa differ from the UK and the
9 identified factors that influence change in management accounting in South Africa are different from
10 those which influence it in the UK. In the same vein, Hoque and Hopper (1997) concluded that
11 macro - context factors, such as the political climate, government regulations, competition, industrial
12 relations and aid agencies, influenced factors related to the budgetary procedures (e.g., budget
13 evaluation, participation, flexibility) in the studied firm, a Bangladeshi company. The above studies
14 in developing countries indicate that, despite the tremendous political, economic and social changes
15 affecting businesses in these countries, traditional MAPs are still dominant, while there is no
16 evidence of the use of the so - called advanced management accounting techniques, such as ABC
17 and BSC.
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21 In the Libyan case, the transition from a planned economy to a market economy, which was
22 initiated in the late 1980s, has resulted in fundamental changes in the regulatory context such as the
23 restructuring and privatizing of state - owned organizations, a remarkable growth in foreign direct
24 investment and an emerging private sector (Sharif, 2000; Al - Gaddafi, 2002). The deregulation of
25 the economic system has also reduced the role of the Libyan government to be limited to some
26 public activities such as health, education and security (Sharif, 2000). Thus, a new Libyan business
27 environment has emerged within which Libyan companies operate, especially those that are state –
28 owned and encounter increasing competition which causes deterioration in their financial
29 performances (ibid). This change also was a result of the crises that the Libyan economy faced in the
30 late 1980s and the early 1990s when the country's economic situation and standards of living
31 worsened as a result of the political and economic sanctions imposed by the US and UN since the
32 late 1980s which caused a serious decline in the Libyan economic activity (Ali, 2010). However,
33 after the US and UN lifted their sanctions in September 2003, the Libyan government has also
34 embarked on a series of social, economic and legal reforms. It has demonstrated its intention to
35 move towards a free market. Thus, a number of laws and resolutions were issued by the General
36 People's Congress (GPC)¹ in the past few years in order to enhance economic development and to
37 move the country from a centrally controlled economy to a liberalized economy by encouraging the
38 private sector to emerge again and attracting foreign investments. In addition, Libya has joined the
39 World Trade Organization (WTO) and thus most of the laws are being reviewed in the context of the
40 WTO requirements (Ali, 2010). In addition, after the 2011 Libyan revolution, the business
41 environment has also witnessed radical changes in the Libyan socio - economic and political context,
42 market and regulations systems. Therefore, the 2011 Libyan revolution is also considered as one of
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48 ¹ The General People's Congress (GPC) of Libya was the national legislature of Muammar Gaddafi's Great Socialist
49 People's Libyan Arab Jamahiriya governance structure. It consisted of 2,700 representatives of the Basic People's
50 Congresses. The GPC was the legislative forum that interacts with the General People's Committee, whose members
51 are secretaries of Libyan ministries. It notionally served as the intermediary between the masses and the leadership
52 and was composed of the secretariats of some 600 local "basic popular congresses".
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2 the events that affected the Libyan economy in recent years. Consequently, all these changes have
3 put immediate pressure on accounting practices to change in order to meet the demands of the new
4 business environment. In other words, changes may also have led to the development of MAPs to
5 provide information relevant to this new business environment. Yazdifar (2003) argues that the
6 characteristics of the new business environment are described as greater dynamism, uncertainty and
7 continuous radical change. This new environment affects not only manufacturing companies, but
8 also organizations in all other sectors. It influences production processes and post - production
9 activities as well as organizational structures, business strategies and managerial philosophies (ibid).
10
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12 Based on the above discussion, the paper focuses on the change in the MACS utilized in two large
13 Libyan public manufacturing companies as a response to the change masterminded by the state in its
14 economic system from a centrally planned to a market based mechanism as well as the change in the
15 political and economic system that occurred in Libya in recent years. The paper also introduces the
16 findings of two case studies that explored the processes of the MACS change in Libyan public
17 companies, the First Company (TBC) and the Second Company (NTC). More particularly, it draws
18 on the new institutional sociology (NIS) perspective of institutional theory (DiMaggio and Powell,
19 1983, 1991). The aim of this paper is to investigate change in management accounting within the
20 context of the Libyan transition by focusing on the main MACS including planning, controlling,
21 costing, directing and decision making systems as well as change in two aforementioned Libyan
22 manufacturing companies over the period of time stretching from 2003 to 2013. The paper also
23 focuses on both the nature of change in management accounting and the identification of the factors
24 which cause such change in management accounting at the selected companies in this study.
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28 For this study, the main aim is to investigate change in the management accounting and control
29 systems (MACS) in relation to the change in the Libyan business environment. Thus, this study
30 seeks to explore the change in the MACS after the economic deregulation in Libya over the period
31 of time stretching from 2003 to 2013. It also investigates the influence of institutional factors on the
32 MACS. In order to achieve this aim, the following questions are addressed:
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34

- 35 1. What types of the MACS are currently applied in Libyan state - owned manufacturing companies?
- 36 2. What types of changes that have taken place in any of the MACS in Libyan state - owned
37 manufacturing companies?
- 38 3. Why and how these MACS changes have taken place in Libyan state - owned manufacturing
39 companies?
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43 **2. Literature Review**

44

45 The concept of accounting change is problematic (Pettigrew, 1995; Kanter et al, 1992). There is no
46 generally agreed definition of management accounting change. Nevertheless, the meaning of change
47 can be imputed from the studies undertaken. Dawson (1994, p. 10), defines change in an
48 organization as “*any alteration in tasks or activities*”, but he also viewed change as a continuous
49 process which can be progressive and regressive and has both intended and unintended
50 consequences. Pettigrew (1995) points out that change has several aspects: a change involves the
51 speed, quantity and quality of change. He argues that applying different theories of change will lead
52 the researcher to concentrate on various aspects of change. Thus, Pettigrew (1995) concludes that the
53 meaning of change depends on the definition utilized by the individual researcher in his / her
54
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1
2 theoretical framework. Consequently, he advocates that researchers define what they mean by
3 change in their research design. Kanter *et al*, (1992) stated that the viewpoint of those who think
4 they are creating change may be different from those who will be affected by these changes. He also
5 argues that the intentional change might be a decision made to formalize the type of activity that had
6 existed in the background of the organization the whole time.
7

8
9 In the field of management accounting, much has been written in recent times on the subject of
10 management accounting change (e.g. Libby and Waterhouse, 1996; Burns, Ezzamel and Scapens,
11 1999; Burns and Scapens, 2000; Burns and Vaivio, 2001; Williams and Seaman, 2001; Hassan,
12 2005; Sulaiman and Mitchell, 2005; Laitinen, 2006; Lukka, 2007; Yazdifar *et al*, 2008, Akaber,
13 2010; Tomasz, 2010; Jansen, 2011). (Burns and Scapens, 2000, p. 3) contend that “[m]anagement
14 accounting change has become a topic of much debate in recent years. Whether management
15 accounting has not changed, has changed, or should change, have all been discussed”. Moreover,
16 the environment in which management accounting is practiced surely appears to have changed, with
17 advances in information technology, new management strategies, different organizational structures
18 and highly competitive environments (e.g. Ezzamel *et al*, 1996). Although some researchers claimed
19 that the basic nature of management accounting practices has not changed (e.g. Drury *et al*, 1993),
20 there is proof that the use of accounting systems or practices within organizations has changed
21 (Bromwich and Bhimani, 1994).
22
23

24 Wickramasinghe and Alawattage (2007, p. 103) point out that management accounting change can
25 be reflected in recent developments in three key areas: cost management, strategic management and
26 management accounting in new organizations. Furthermore, they have introduced a definition of
27 management accounting from different standpoints, such as technical - managerial, pragmatic -
28 interpretive and critical - socio - economic, showing management accounting change as a change
29 from a mechanistic approach (e.g. mechanization in technology, production - orientation in
30 management, and conventional wisdom in management accounting) to post - mechanistic approach
31 (e.g. digitalization in technology, customer -orientation in management and new management
32 accounting). According to them, the process of change reflects on the question of how management
33 accounting techniques emerged, evolved and were transformed as a result of the changing
34 competitive environment and the advanced manufacturing technology. According to Burns and
35 Vaivio (2001), change can be considered as a centrally driven effort managed by the top
36 management that recognizes the need for change as well as planning, organizing and controlling the
37 change. On the contrary, lower managerial levels might be the main players in the process of change
38 when the top management is not able to identify the particular circumstances that require change in
39 accounting practices.
40
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42

43 Moreover, research pertinent to change in management accounting has utilized a variety of
44 theoretical frameworks and a range of different research methods. The former include the following:
45 agency theory - the principal - agent relationship (Eisenhardt, 1989; Baiman, 1990), contingency
46 theory framework (Otely, 1980; Innes and Mitchell, 1990; Jones, 1985), Giddens’ theory of
47 structuration has been proposed as a useful framework of conducting alternative management
48 accounting research by some researchers (cf. Giddens, 1984; Macintosh and Scapens, 1990;
49 Macintosh, 1994; Moore, 2011), the institutional theory context that highlights the rules, routines
50 and practices of organizational processes according to old institutional economics (OIE) perspective
51 (Burns *et al*, 1999; Burns and Scapens, 2000) as well as the new institutional sociology (NIS)
52 perspective that highlights the institutional and competitive isomorphism between organizations
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(DiMaggio and Powell, 1983, 1991) and the organizational and social context with a focus on power and knowledge relations (Covaleski *et al*, 1996). The latter include both the case study (Amat *et al*, 1994; Shank, 1996) and the survey method which has not been widely used in the area of change in management accounting (Libby and Waterhouse, 1996; Williams and Seaman, 2001). Each approach or method has its strengths and weaknesses. Both approaches are appropriate in answering different questions. However, the case study approach is more appropriate for studies of change in management accounting (Yin, 2003).

Management accounting change is not a uniform or homogeneous phenomenon (see, Hopwood, 1987; Sulaiman and Mitchell, 2005; Chanegrih, 2008). Accordingly, one might expect the causal factors of change to be varied and this has been confirmed by researchers in the field of management accounting. It is apparent that both the external environmental factors (macro - context factors) and internal factors (the micro- organizational factors) have influenced the recent development of new management accounting systems and techniques. According to Macy and Arunachalam (1995), management accounting change is defined as the ability of management accounting systems to adapt to changes in an organization's internal and external environment. In addition, change in environment means uncertainty and risk which generate a demand for further management accounting change in the shape of 'non - financial' measures (Vaivio, 1999).

The association between management accounting practices and the business environment has also been investigated in prior studies. For example, researchers such as Wijewardena and De Zoysa (1999) argue that management accounting should respond to any change in the environment and accountants must make timely changes in their practices if accounting is to contribute more effectively to the success of organizations. Kaplan (1985) points out that management accounting systems will change or have to change whenever there is a change in the business environment within which organizations function and describes it as a cause -effect relationship. Also, to understand the process of management accounting change in the electronic sector, Innes and Mitchell (1990, p. 14) classified the causal factors to management accounting change into three major categories as follows: (1) *Motivators*: factors that affect change in a general way, including competitive market, organizational structure, production technology, product cost structure and short product life cycle; (2) *Catalyst*: factors that are related directly to the timing of change, including poor financial performance, loss of market share, organizational change, new accountants and launch of competing product; and (3) *Facilitators*: factors deemed significant for change but not adequate in themselves, including accounting staff resources, degree of autonomy, accounting requirements, authority of accountants and accounting computing resources.

There has also been an argument concerning whether management accounting has changed to respond to the change in the business environment, such as increased competition, production technology and information technology. For instance, Johnson and Kaplan (1987) argue that there has been no considerable change in management accounting systems since 1925, despite the great changes in numerous aspects of the business environment, for instance increased competition, fast progress in production and process technology. Furthermore, many previous studies concluded that traditional management accounting systems are still extensively utilized and new systems, such as ABC, are not being utilized widely (Burns *et al*, 1999). In contrast, there is another standpoint opposing the claim of Johnson and Kaplan (1987). For instance, Scapens and Burns (2000) claim that there have been a number of innovations in management accounting since the published study of Johnson and Kaplan in 1987, such as the ABC and Balanced Scorecard (BSC) techniques.

1
2 Change can be addressed in a variety of dimensions. This is evident from the main aspects of change
3 which are reflected in the definition of the American Heritage Dictionary, 4th Edition, 2001. This
4 definition comprises all of the following aspects: becoming different or undergoing alteration;
5 transformation or transition; making an exchange; modifying; going from one stage to another;
6 substitution; replacing with another system; giving and receiving reciprocally and abandoning. This
7 definition shows different types of change and this diversity demonstrates that change is not a
8 homogeneous phenomenon in general. It is not fixed in its nature and can be different in terms of
9 importance and implications.
10

11
12 Accordingly, researchers in management accounting have focused on different types of change. For
13 instance, Sulaiman and Mitchell (2005) and Chanegrih (2008) have focused on the typology of
14 change in management accounting (the types of change), and on management accounting control
15 systems in their studies. Their typology proposed five categories of change in technical management
16 accounting, namely: (1) addition, (2) replacement, (3) output modification, (4) operational
17 modification and (5) reduction. **These five categories of change are defined by Sulaiman and**
18 **Mitchell (2005) in the following sub-headings:**
19

20 21 *1. Addition of New Management Accounting System*

22
23 This dimension involves the adoption of new techniques within the existing body of management
24 accounting system in an organization, for instance, the first use of a product costing system or the
25 first implementation of the ABC, the BSC and performance reports (Sulaiman and Mitchell, 2005).
26 This implementation is often related to the early stages of organizational development in the
27 organization (ibid).
28

29 30 *2. Introduction of New Technique as Replacement*

31
32 Replacement refers to the introduction of new methods to substitute the existing components of a
33 management accounting system. For instance, where investment appraisal technique based on the
34 payback period is replaced by the net current value method. Numerous researchers have studied
35 change as the progressive replacement of the existing management accounting system (see Innes and
36 Mitchell, 1990; Burns *et al*, 1999).
37

38 39 *3. Outputs Modification*

40
41 This dimension relates to situations where there are no new management accounting techniques
42 involved. Rather, this aspect deals with the amendment of information outputs of the existing
43 management accounting systems. For example, the preparation of weekly reports as opposed to
44 monthly variance reports, or the change of presentation of information from the numerical
45 information to graphical format (see Granlund, 2001; Sulaiman and Mitchell, 2005).
46

47 48 *4. Operational Modification*

49
50 This dimension relates to the amendment of technical aspects of the existing management
51 accounting systems or techniques of the organization. For instance, the modification of overhead
52 absorption from labour hours to a machine time basis in an organization's costing system or the use
53 of pre - determined overhead rate as opposed to the actual overhead rate (Sulaiman and Mitchell,
54 2005).
55

5. *Reduction of a Management Accounting System*

This type of change involves the removal of a particular management accounting system, for example, the elimination of conventional budgeting with no replacement for this budgetary (Sulaiman and Mitchell, 2005).

Furthermore, the main result of Sulaiman and Mitchell (2005) demonstrates that the change in management accounting is not a uniform phenomenon. In addition, they found that the rate of change in management accounting in Malaysian companies was higher than that in the Canadian, French and Singaporean companies (Libby and Waterhouse, 1996; Sulaiman and Mitchell, 2005; Chanegrih, 2008). Their studies have agreed that the highest level of change in management accounting was in controlling, planning and costing sub-systems. Little attention has been given by researchers to the nature of change in management accounting systems or accounting practices. Furthermore, there is no clear - cut definition of change in management accounting (Granlund, 2001). In the case of Libya, to date, there is very little research about change in management accounting (e.g., Alkizza, 2006; Zoubi, 2011). It appears that no study has been conducted that focuses on the MACS change in the Libyan public industrial companies within their developmental environment by using the NIS perspective. As a result of this lack of knowledge about change in management accounting, it was felt that intensive research was needed to explore and understand the state of the MACS as practices in economic transition conditions in one of the developing countries, namely Libya.

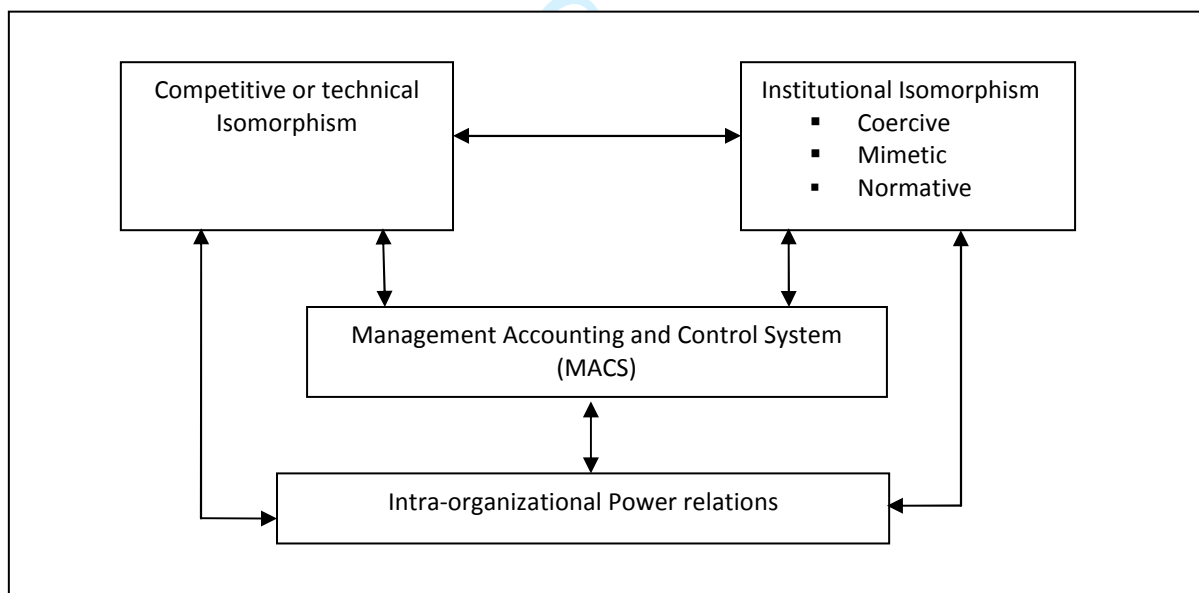
3. **Theoretical Framework**

The theoretical framework that is used in this study draws upon new institutional sociology perspective (NIS) of institutional theory (Meyer and Rowan, 1977; DiMaggio and Powell, 1983, 1991). This perspective is utilized as a framework to describe and explain the institutional pressures that influence Libyan state - owned manufacturing companies (TBC and NTC) to adopt the MACS or practices. The assumptions of NIS perspective seek to explain the similarity among organizations which operate in similar environment, societal sectors or organizational fields (Scapens, 2006). These assumptions have a larger focus on external factors rather than internal organizational factors (Moll *et al*, 2006). Thus, new institutionalists believe that the external environment shapes the internal processes in an organization including management accounting systems. To clarify, this study focuses upon change in MACS in the aforementioned organizations. Therefore, it examines how and why MACS design and operate in the environment of Libyan companies. It also provides a framework for understanding the processes and context of the MACS. The framework draws on insights from strands of NIS perspectives of management accounting to offer an explanation of the interaction among organizational context and behaviour. The NIS perspective was chosen as it is, based on evidence in previous research, and considered to be a useful tool as it provides a theoretical framework for achieving a richer understanding of the phenomena being studied from its wider context (e.g., DiMaggio and Powell, 1983, 1991; Greenwood and Hinings, 1996; Burns, 2000; Burns and Scapens, 2000; Hussain and Hoque, 2002). However, some studies in management accounting (e.g., Abernathy and Chua, 1996; Collier, 2001; Dillard *et al*, 2004; Tsamenyi *et al*, 2006) have addressed some of the limitations of NIS. As a result, institutionalization is not only seen as arising out of pressures from an organization's external environment, but also from the actions of organizational actors. Collier (2001, p. 468) stated that "accounting is implicitly involved in relations of power within the institution - organization environment". In addition, Lounsbury (2008) pointed

out that it is not in favor of institutional researchers to de-emphasize the rationality of organizations in adopting management accounting practices. He argues that there is a need for institutional researchers to broaden their analysis to focus upon rational choice as opposed to assumption in institutionalism that organizations adopt practices mainly for legitimacy purposes (ibid). He also observed that “by focusing more on actors and organizational heterogeneity, institutionally-oriented theorists may seek fruitful connections to currently fashionable domains such as practice theory that have been influential in contemporary studies of accounting and related contexts” (ibid). Accordingly, some of the limitations of NIS identified above will be addressed in this study by incorporating intra-organizational power relations and market forces in the NIS analysis, as shown in figure (1).

Figure (1) shows that the theoretical framework draws on the argument that how MACS work in any particular organization is influenced by the institutional environment, market forces and intra-organizational power relations. The framework recognizes that there is a dynamic relationship among these three factors (Collier, 2001; Tsamenyi *et al*, 2006). For instance, the different kinds of institutional isomorphism (coercive, mimetic and normative) are influenced by both market competition and intra-organizational power relations. At the same time, market competition and power relations are shaped by the institutional factors. In addition, there is a dynamic relationship between power relations and market pressures. This assumption of a dynamic relationship would also contribute to our understanding of how MACS change over time. These relationships between institutions, markets and power are likely to be static, but, instead, evolve over time. The theoretical framework is later adopted in this paper to interpret the role of the MACS in the studied companies.

Figure (1): The Theoretical Framework of the Study



The justification for adopting NIS of institutional theory as a theoretical framework, because it adds the social and political elements which are usually absent or a little emphasized on the rational instrumental approach such as contingency theory. Many researchers have discussed the significance of politics in relation to organizational change (see for example, Alam, 1997; Buchanan and Badham, 1999). They argued that politics can play a key role in shaping organizational processes.

1
2 According to Oliver (1997), institutional theory assumes that individuals are “motivated to comply
3 with external social pressures”. From an institutional perspective, management accounting systems
4 could be constructed as being shaped by organizational actors and the broader institutional
5 environment. Therefore, management accounting practices should be interpreted in the context of the
6 behaviour of individuals and groups within the organization. NIS theory can therefore offer wide
7 understanding of accounting choices and behaviour (Scapens, 1994). In addition, many previous
8 studies in management accounting have widely used NIS as a theoretical framework for exploring
9 various accounting issues in both the public and private sectors in many countries. These studies
10 have concentrated on issues such as how the adoption of accounting systems is shaped by different
11 isomorphic pressures (Carpenter and Feroz, 2001; Hussain and Hoque, 2002), the interaction
12 between institutional and technical environments (cf. Hoque and Hopper, 1997; Hussain and Hoque,
13 2002; Tsamenyi *et al*, 2006) and the role of power and agency in the design and use of
14 organizational accounting systems (cf. Collier, 2001; Tsamenyi *et al*, 2006).
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18 In the present study, the researchers have chosen a case study approach as qualitative method for
19 collecting data from two Libyan public manufacturing companies, namely, the TBC and the NTC.
20 Thus, NIS is a more appropriate approach to the current study. In addition, Libyan organizations
21 operate in an uncertain environment and external influences such as economic, social, legal and
22 political factors all play an important role in Libyan society. Such factors, therefore, are also likely
23 to be important to the management accounting practices of Libyan state - owned manufacturing
24 companies. According to Tsamenyi *et al* (2006, p.410), “NIS is particularly relevant for analyzing
25 organizations that are confronted with uncertainties and, as a result, compete for political and
26 institutional legitimacy and market position”.
27
28

29 **4. Methodology and Research Methods**

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32 This study adopts a new institutional sociology perspective (NIS) of institutional theory as its
33 underlying theoretical framework. Indeed, the NIS perspective has been chosen because it is very
34 important in terms of providing a general picture and understanding about why and how the MACS,
35 as practices, design and operate in the environment of Libyan public manufacturing companies.
36 Moreover, such a perspective is useful to identify the different institutional factors in forming the
37 similarity and dissimilarity of these systems or practices (cf. DiMaggio and Powell, 1983, 1991). In
38 doing this, managers, heads and accountants are asked to express their views regarding different
39 issues of MACS changes obtained from the management accounting literature and NIS perspective
40 of institutional theory (e.g., Hussain and Hoque, 2002, Moll *et al*, 2006 and Yazdifar *et al*, 2008).
41 Some of the identified limitations of the NIS are also addressed in this study by incorporating intra -
42 organizational power relations and competition or market forces in the NIS framework (see Collier,
43 2001, Modell, 2002 and Tsamenyi, *et al*, 2006). In order to achieve the objectives of this research, an
44 appropriate research methodology is employed, in particular Laughlin’s (1995) framework: “middle
45 range thinking approach”. Laughlin (1995, 2004) provided a useful framework for the positioning of
46 accounting research as well as the selection of an appropriate methodology. He proposed three
47 dimensions for classifying different schools of thought, namely: (1) theory, (2) methodology and (3)
48 change. Theory refers to the level of prior theory. Methodology refers to the level of theory in
49 methodology itself (Ryan *et al*, 2002). Change has a similar meaning to Burrell and Morgan’s (1979)
50 ideas, but is considered as a continuum rather than discrete choice. Laughlin (1995) classified
51 theories which have informed accounting research, but he did not situate institutional theory, actor
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2 network theory or practice theory within his own framework (Roslender, 2013). According to
3 Roslender (2013), institutional theory is an example of middle range thinking as this was introduced
4 into the accounting literature in Laughlin (1995, 2004). Roslender (2013, p. 13) also points out that
5

6 “[i]nstitutional theory scores relatively low in respect of methodology in much the
7 same way as Laughlin (mis)conceives of symbolic interactionism, and as a result is
8 confirmed as being best located in the bottom left box of the three-by-three matrix. At
9 the limit some institutionalist thinking might just shade into the middle left hand box,
10 alongside structuration theory and some Marxist and Critical Theory, although unlike
11 them, with only a low level of change orientation”.
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14 Based on the above, this study is primarily informed by a qualitative methodology. In addition, given
15 the limited knowledge concerning the MACS change in Libyan public companies; it is believed that
16 qualitative research is the most appropriate methodology to conduct this study. Methodology can be
17 defined in many ways. For Taylor and Bogdan (1984, p. 1), “methodology is a way of thinking in
18 order to achieve the objectives of this research”. It also principally involves the production of
19 descriptive data in the form of “people’s own written or spoken words and observable behaviour”
20 (Taylor and Bogdan, 1984, p. 5). The justification for the choice of methodology of qualitative
21 research is based on the researchers’ philosophical assumptions regarding ontology, epistemology,
22 human nature and the nature of society which inclines towards the use of ideographic methodology.
23 These assumptions have guided the researcher towards the description, exploration and
24 understanding of the MACS practices based on the perceived reality of managers, heads and
25 accountants in both two companies regarding the nature of change in the MACS as practices.
26 Therefore, although the study seeks an understanding of change in management accounting in the
27 Libyan context, it does not aim to derive generalisable and predictive conclusions regarding this
28 practice. In the case of this study, the subjective and interpretative orientations emphasize qualitative
29 research, i.e., the current study can be located within the interpretive stream of accounting research
30 as it investigates the reasons for change in the MACS. **For the purposes of this research, multiple
31 methods of data collection from the Libyan case studies context were selected (semi -structured
32 interviews, participant and direct observation, and document analysis). These methods are employed
33 to attempt to avoid jeopardizing validity and reliability.** The researchers adopted the case study
34 approach (the interpretive approach) to achieve the objectives of this study as this approach offers a
35 chance to conduct intensive observations of enterprises and can be argued to be the best method to
36 understand phenomena in their natural contextual settings. Case studies have been widely advocated
37 as a suitable research method for investigating organizational (including management accounting)
38 practices in their broader and social context (Scapens, 1990).
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44 For the process of conducting and analyzing data, the data analysis stage was started after the data
45 collection was completed. This stage included detailing the interviews, documents and reports were
46 summarized and observations were codified. **During the participant and direct observation period,
47 brief notes were taken. These notes were expanded and the majority of these notes were reflected as
48 questions that were being asked through interviews.** In relation to interviews which has been
49 conducted from mid-October 2012 to mid-January 2013, the 32 face – to - face semi - structured
50 interviews were conducted with managers, heads and accountants in the aforementioned two Libyan
51 state - owned manufacturing companies (the TBC and NTC). These interviews comprised 17
52 interviewees in the TBC and 15 interviewees in the NTC. The conduct and analysis of the interviews
53 involved three stages: (i) arranging and performing the interviews, (ii) transcribing the interviews
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2 and (iii) analyzing the responses. To arrange for the interviews, the researcher used the phone in
3 most cases both with the TBC and the NTC. Participants were selected based on the availability,
4 experience and knowledge. Before the commencement of each interview, the researcher asked for
5 permission to tape the conversation and 18 of the 32 interviewees agreed about using a tape -
6 recorder (10 interviewees at the TBC and 8 interviewees at the NTC were recorded). As for the
7 remaining 14 participants, the researcher was writing their responses during the discussions. During
8 the interview, the interviewer had to take notes in order to generate other questions. The second
9 stage in the process is the transcription of the interviews. This was undertaken immediately after
10 finishing the interviews. All of the interviews were conducted in the Arabic language. Therefore, the
11 initial transcriptions had to be translated from Arabic to English. For the purpose of analyzing these
12 interviews, the researchers created a grid Microsoft Excel. For each case company studied, the semi -
13 structured questions were listed in columns while the interviewees were organized by rows; this
14 technique allows the researchers to explore and compare collective responses to a particular
15 question. In addition, the main points and relevant quotes were identified. Regarding the third stage
16 in the process is the analysis of interviews, Saunders et al (2009, p.490) point out that “*there is no*
17 *standardized procedure for analyzing such data*”. Nevertheless, they propose a three - step method
18 of investigation: (i) summarizing; (ii) categorization and (iii) structuring of meanings, whereas
19 pointing out that the process is “*demanding and should not be seen as an easy option*” (Saunders et
20 al 2009, p. 484). A number of wide themes were therefore developed and these are reflected in the
21 structure of the discussion of the study’s findings. In relation to document analysis, there have been
22 some documents that were collected for this study from the TBC and NTC as follows: the new and
23 old organizational structure for the TBC and NTC, the establishment contract, new essential rules
24 and regulations, job descriptions, written reports of events, administrative documents such as
25 monthly and quarterly reports, the state decisions, annual financial statements (income statement and
26 balance sheet), profit and loss accounts and production reports. Therefore, all these documents have
27 been summarized. Furthermore, the documents that have been collected and used in the empirical
28 analysis of the study covered the period from 1999 to 2012.
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34 The TBC and the NTC were selected for this research for a number of reasons. They are significant
35 public companies in the Libyan economy and the region because they meet around 90% of the local
36 demand for trucks, buses and trailers. Both companies are the only organizations to manufacture the
37 kinds of products they do in Libya and thus have access to a large market. In addition, both the TBC
38 and the NTC operate in a competitive context with a significant competition from the imported
39 products by the Libyan private companies in the field of trading of trucks, buses and trailers.
40 Moreover, ease of access to the personnel of these companies and availability of assistance in
41 collecting particular documents appropriate for the research were important factors determining this
42 choice.
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45 **6. The Study’s Findings**

46 **6.1. Historical Background of the TBC and NTC**

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48 The two case studies are large state - owned companies and their activities are industrial and
49 commercial. Both companies are also located in the industrial complex in Tajoura region and are
50 affiliated to the Ministry of Industry. They were also founded around the same time as joint ventures.
51 The TBC was founded in 1976 as a joint venture with the Industrial Vehicles Corporation (IVECO)
52 based in Italy, whereas the NTC was founded in 1981 as a joint venture with the Italian Calabrese
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Company. Furthermore, the organizational structures of both companies have witnessed some modifications around the same period (2008 - 2009). Therefore, new administrations and departments had been introduced to the new version of the organizational structures of both companies. With regard to the companies' capital, it was quite similar when they were established: that of the TBC was LD 6.8 million in 1976, while that of the NTC was LD 7.6 million in 1981. The share of foreign partners was similar in both companies; it constituted 25% of the capital in each company. The TBC's capital reached LD 96 million in 2000 which represents the current capital, while that of the NTC has remained the same since its inception. Furthermore, the capital of both companies remained the same until 2013. However, in 1999, the TBC and NTC became fully owned by the Libyan state. The reason for establishing these industrial companies in Libya is to create job opportunities for Libyan citizens. Thus, the Libyan state achieved self - sufficiency and self - reliance through relying on local production rather than consumption from abroad. The TBC produces locally trucks and buses, whereas the NTC produces trailers which are installed on the trucks. Therefore, there is a clear relationship in manufacturing operation between both companies. They are working in the same field. The two companies were also given a certificate of International Standard Organization (ISO 9001: 2000). The TBC obtained this certificate in 2004, while the NTC obtained it in 2007. Moreover, in the 1990s, like many Libyan state - owned companies, both companies witnessed the same circumstances, such as the imposing of international sanctions by the UN and the USA (see Vandewalle, 2006), in addition to the recent sanctions imposed in 2011 as a consequence of the Libyan uprising (see Security Council, 2011). Both companies using the MACS, which are planning systems, controlling systems, costing systems, directing systems, and decision making systems (see Table 1 for more details). The following sections will explain the changes in the MACS in each case study.

Table (1): shows the existing MACS and sub-systems in the TBC and NTC

MACS	MACS in TBC	MACS in NTC
Planning Systems	<ol style="list-style-type: none"> 1. Strategic Planning 2. The Estimated Budget 3. Operations Planning (Production) 	<ol style="list-style-type: none"> 1. The Estimated Budget
Controlling Systems	<ol style="list-style-type: none"> 1. Quality Management System 2. Performance Measurement in terms of Customer Satisfaction 	<ol style="list-style-type: none"> 1. performance measurement system
Costing Systems	<ol style="list-style-type: none"> 1. Direct Allocation of Manufacturing Overhead 2. Direct Allocation of Marketing Costs 3. The Pricing System 	<ol style="list-style-type: none"> 1. Costing system, such as manufacturing costs. 2. Pricing system

Directing Systems	1. The Incentives System, such as rewards for workers, financial subsidies and advances or loaning.	1. Incentives and subsidies, such as rewards, tickets for Hajj ² .
Decision Making Systems	1. Reporting System, such as monthly, quarterly and annually reports.	1. Reporting System, such as monthly, quarterly and annually reports.

6.2. Change in the TBC's Management Accounting and Control Systems

As clarified previously in this paper, Sulaiman and Mitchell's (2005) typology of change in management accounting demonstrated that there are five various dimensions / types of change:

1. Introduction of new techniques or systems as replacement for existing ones.
2. Introduction of new techniques where no management accounting previously existed.
3. Modification in the management accounting information or outputs.
4. Modification of the technical nature of a management accounting system.
5. Removal of a management accounting technique or system with no replacement.

Nevertheless, some of these dimensions of change were discovered in this study. In the case study of the company, TBC, two of these five management accounting change dimensions were discovered. These two dimensions are: (i) the introduction of new techniques where no management accounting previously existed; and (ii) the modification in the information or output. These two dimensions will be explained in the following sections:

1. Introduction of New System where no Management Accounting previously existed

This dimension involves the extension of the management accounting system by the introduction of new systems to the TBC. These systems are: strategic planning; quality management system (QMS); performance measurement in terms of customer satisfaction and direct allocation of marketing costs.

Strategic Planning

Some of the interviewees pointed out that the strategic planning is a new planning system that has been implemented in recent years. For example, the Director of Strategic Planning stated that:

“there has been growth in the planning sub-systems in recent years especially in the strategic planning system. Strategic planning, which is concerned with a long-term rather than a short-term plan was implemented in April 2009 in the TBC. The strategic planning implementation only took place in April 2009 even though the idea was first conceived in 2007. The TBC is therefore required to prepare and submit at the end of each year its five-year strategic plans”.

² Hajj means pilgrimage and is one of the pillars of Islam, where the Muslims visit Sacred Mosque in in Makkah in Saudi Arabia once a year for worship.

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3 The Director of Strategic Planning stated that “*the company hired some professionals and experts in*
4 *the preparation of strategic planning*”. He also emphasized that “*the company must adopt strategic*
5 *planning processes to thrive in the newly competitive and commercial environment*”. According to
6 jobs description at the TBC, strategic planning department is responsible for overseeing the works of
7 strategic planning at all administrations, departments and offices as well as in order to be uniform
8 down to the company’s overall strategy.
9

10 11 ***Quality Management System (QMS)*** 12

13 Introduction of the QMS (ISO 9001) as a modern technique is one of the changes that have taken
14 place in recent years. Also, although the company had a quality department before 2004 in order to
15 concentrate on production quality, however the company had not been applied ISO system in the
16 past. In 2004, ISO has imposed the QMS on the company, which led to changing the style of reports
17 from narrative reports (about 30 or 40 pages) to reports that take a particular form by using charts
18 and statistical methods. Previously, each administration or department of the company was
19 presenting its report in its own way and did not have a specific form to present it. The new style of
20 reports is required to do comparisons to measure the performance of the current year with last year
21 as well as for six months to see the rate of performance. This technique was introduced in the year
22 2004. The focus of this new technique was on the regulatory aspects, but the financial aspects were
23 outside the scope of ISO. However, the researcher has observed that ISO certificate was not
24 renewing. The Director of Quality Control agreed with this researcher’s observations by saying that:
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28 “Given the circumstances of the war that happened in Libya in 2011 due to the
29 uprising of 17 February against Al-Gaddafi regime, we did not renew the ISO
30 certificate, but the TBC will renew this certificate in the near future, especially the
31 conditions of Libya in 2012 are better than before. Also, we expect that the next years
32 will be much better”.
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35 There is a formal written description of the quality management system (International Standard- ISO
36 9001: 2000) at the administration of quality control in the TBC. This International Standard specifies
37 requirements for a quality management system (QMS), where an organization: (i) needs to
38 demonstrate its ability to consistently provide products that meet the customer satisfaction, the
39 applicable statutory and the regulatory requirements, and (ii) aims to enhance customer satisfaction
40 through the effective application of the system, including processes for continual improvement of the
41 system and the assurance of conformity to the customer, applicable statutory and regulatory
42 requirements. The design and implementation of an organization’s QMS is influenced by: (a) its
43 organizational environment, changes in that environment and the risks associated with that
44 environment; (b) its varying needs; (c) its particular objectives; (d) the products that it provides; (e)
45 the processes it employs and (f) its size and organizational structure.
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48 49 ***Performance Measurement in Terms of Customer Satisfaction*** 50

51 This system is also one of the controlling systems that have introduced to the company in recent
52 years, particularly after the Libyan revolution in 2011. Some of the interviewees admitted that little
53 attention had been paid to customer satisfaction in the past. The TBC was a monopoly company and
54 was selling its goods according to the orders of customers. However, this situation has entirely
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1
2 changed recently due to the competitive market conditions. The TBC has implemented some extra
3 services aiming to satisfy customers. For instance, The Director of Marketing pointed out that:
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5 “the Department of Market Analysis is responsible for preparing questionnaires in
6 order to get opinions from customers concerning the quality of services provided
7 by the TBC. For instance, the welcoming within the company, customer
8 satisfaction for procedures during the sale, time and punctuality which set to
9 receive products, type of product, customer preferences, prices, maintenance
10 services after the sale, technical specifications of the product, etc. Also, this model
11 is applied in accordance with the ISO 9001 standard”.
12
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14 ***Direct Allocation of Marketing Costs*** 15

16 The TBC has made a change through introducing the direct allocation of marketing costs system to
17 the costing system. This technique was implemented in 2012 as a result of the increasing
18 competition with companies in the private sector. Therefore, the company is currently operating in
19 an open market (the competitive market) and not in the monopolist market (the closed market) as
20 before. One of the Costs Accountants stated that “*this type of change is a reality that has been*
21 *imposed on the company*”. So, this technique is currently under practice in the TBC. In the past, the
22 production of trucks and buses was monopolized by the Libyan state, but now there are several
23 competitors in the same specialty, sales and in the same fashion. In addition, the company has been
24 directed to contain the social aspects. In other words, the company was used to contain people
25 through creating work opportunities and was not meant to enter competition or the market. The
26 General Director of Financial Operations argued that the Libyan state has now entered a new phase
27 of reconstruction and construction; therefore these things are needed for the company's products, i.e.,
28 the market is thirsting for the company's products. Accordingly, this change in the costing system
29 has been taken into account in the preparation of pricing system in the company. The Head of
30 Overhead and Commercial Cost Control Department argued that marketing includes all the activities
31 that the TBC needs in order to transform the purchasing power of the consumer to the effective
32 demand. These activities include all issues that are related to the study of "consumer" and its needs.
33 Marketing costs at the TBC include, for example, the costs of advertising and sales promotion, the
34 costs of credit and collection, the marketing director salary, the cost of direct selling (e.g. telephone),
35 and research and development costs. He also pointed out that:
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40 “the Director of Marketing plays an important role in taking production
41 decisions / marketing and helps in the development of a plan which includes all
42 areas of the operating cycle. Arguably, this system is new within the company.
43 It was implemented in the TBC in 2012 due to the presence of new competitors
44 in the domestic market. During Gaddafi’s regime, the products in the Libyan
45 market were monopolized by the TBC, i.e., there was no competition with other
46 organizations before the Libyan revolution 2011”.
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50 **2. Modification in the Management Accounting Information or Outputs**

51 According to **Sulaiman and Mitchell (2005)**, this type of change occurs either by adding to or
52 modifying the budget based information or other management accounting outputs. This dimension
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2 also relates to situations where there are no new management accounting techniques involved, such
3 as the estimated budget and the reporting system in the TBC.
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5 ***The Estimated Budget***

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7 In the past, the estimated budgets for each year were prepared to be based on production, more or
8 less depending on the design capacity. Thus, the TBC has to prepare the estimated budgets for the
9 following financial year. But, in recent years, especially after the revolution of February 17th, 2011
10 this situation is completely different, because the estimated budget is now based on the targeted
11 production, as well as the study of the market in order to determine the actual cost prices and to
12 compete with the market. Therefore, the Marketing Administration plays a key role in the budget
13 planning process. This planning process takes into account all the expenditures that will be required
14 for the coming year. Some of the interviewees mentioned that there are a number of the changes in
15 the estimated budget as a result of competition and changing in the Libyan government's laws and
16 regulations, especially in recent years. For instance, the Director of Costs and Business Control
17 pointed out that the supplies provided from the foreign companies are one of the items that have
18 been changed in the budget, i.e., importing the semi-finished materials in order to be ready for
19 installation rather than importing them disjointed. Consequently, the change in the estimated budget
20 will be based on the existing data and information. He asserted that by saying:
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24 “When we are preparing the estimated budget, it should be based on information that
25 shows the following items; the supplies obtained from the foreign companies, i.e.,
26 materials that come from the foreign company in order to be manufactured in the
27 TBC, part of the materials come disjointed and other materials will be manufactured
28 within the company. All these things will be taken into consideration in preparing the
29 estimated budget”.
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32 The Director of Costs and Business Control also argued that the company currently has a financial
33 crisis and to get out of this crisis; the company has changed the policy of supplying, i.e., the TBC
34 brings or imports the materials almost ready. This is a new direction for the Trucks and Buses
35 Company. Changing the direct supplying policy has advantages and disadvantages. Examples of
36 such advantages include the sales and the installation process that must be done quickly and at the
37 lowest cost. Also, the cost of depreciation and other industrial costs will be decreased. However, it
38 has disadvantages, such as the social impact. In other words, the disjointed materials or partial
39 assembling will need a simple manpower, for example, 200 employees out of the 770 employees, but
40 what about the other people? However, if the products are manufactured as in the past, this will
41 create jobs for people. In this case, the Libyan State or the Ministry of Industry should bear a burden
42 from the company through the creation of jobs for people.
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46 **6.3. Factors that Caused Change in the TBC's Management Accounting Systems**

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48 The institutional factors that caused TBC's management accounting systems to change can be
49 explained in the following sections:
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The Political Pressures and Organizational Legitimacy

There are some political pressures that faced the company; this was the period of the siege, i.e., the embargo on Libya in the 1990s. The isolation enforced on Libya by the US and the UK resulted in a lack of contact with western countries, therefore, access to advances in technology and managerial issues. Libyans were unable to participate in international conferences, training courses abroad, seminars and learn about the latest innovations in all scientific areas, including innovations in accounting such as the ABC and the BSC. The Head of the Direct Materials Purchasing Department stated that:

“the siege affected the company in terms of importing the spare parts. In other words, the company was not able to import from abroad except through other countries closer to Libya. But, the costs of these imports (spare parts) were very high. All these pressures negatively affected the company in general as well as on the market”.

Furthermore, the change of the Libyan political system in 2011 has created competition between Libyan companies. Therefore, that led the TBC to introduce a new system called the direct allocation of marketing costs as a result of the local competition. The Director of Internal Auditing asserted that by saying:

“In the past, the manufacture and sale of trucks and buses were monopolized by Trucks and Buses Company in Libya. In other words, the Libyan citizen cannot buy a truck or a bus from outside Libya. But, after the revolution of February 17th, 2011, there is openness in the local market, i.e., there are now individual competitors in the market who have private companies. These companies bring the used trucks and buses from outside Libya and sell them to citizens at cheap prices”.

The Libyan Government's Laws and Regulations

It can generally be said that the issuance in Libya of laws and regulations continuously and unexpectedly affected significantly the activity of the company in general and the MACS in particular. The Financial Consultant argues that the unstable laws and regulations that were issued by the Libyan State in the past have had a remarkable impact on the business and accounting methods in Libya; to the extent that lawyers were using the legal expression “if not be cancelled by the state” addressing legal matters. He also said that the taxes have impacted on the cash flow statement and the budget due to unstable laws, such as imposing a production tax and a services tax in an unexpected period, i.e., imposing this production tax, etc. after six months of preparing the budget. Moreover, the company has some expenses that are related to the company's activities and needs to regain debts from other companies. It also needs to import some machinery and spare parts from abroad. Therefore, these taxes are a huge burden on the company. All these things have affected the cash flow statement of the company as well as its estimated budget. For example, if the targeted production was 100 trucks, after the imposition of the tax on the production, the target became 40 trucks. In this case, the imposed laws on the TBC have led it to buy raw materials from inside Libya and importing raw materials from abroad at the rate of 40% of the trucks production. As a result of these laws, the company was forced to take loans and facilities from the banks and also

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2 pay interest at a rate of 5% and these interests were doubled and were not counted in the estimated
3 budget. The Financial Consultant also stated that:
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5 “the Managers of Administrations at the TBC discussed these laws and wrong
6 decisions with the Ministry of Industry under Al-Gaddafi’s regime, but they did
7 not reach any solutions. The reason for imposing these laws is a sovereign
8 decision from the State”.
9

10
11 However, after the political system in Libya was changed in 2011; the Libyan National Transitional
12 Council (LNTC) has issued new laws and regulations³. These laws and regulations have been
13 implemented by Libyan companies, for example, the taxation system and customs fees. Therefore,
14 this change in the tax law has been taken into account in preparing the estimated budgets in the TBC.
15

16 *Leading Organizations’ Pressures*

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18
19 One of organizations that led to change in the TBC’s management accounting systems is the
20 International Standard Organization (ISO). The aforementioned Quality Management System (QMS)
21 imposed on the TBC in 2004 shows that all documents in the TBC be controlled according to the
22 requirements of the QMS. The International Organization for Standardization is a worldwide
23 federation of national standards bodies (ISO member bodies). The work of preparing the
24 international standards is normally carried out through the ISO technical committees. The main task
25 of these technical committees is to prepare International Standards. Moreover, the ISO collaborates
26 closely with the International Electro Technical Commission (IEC) on all matters of electro technical
27 standardization.
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30 *Copying the Best Practices from Other Organizations*

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32
33 The TBC was a partner with the Italian company, IVECO at 25% of the company's capital. Some
34 interviewees pointed out that the MACS have been applied in the TBC since it was established.
35 Also, the managers of IVECO have advised the TBC's managers to use them. Therefore, the TBC
36 applies the same management accounting practices that are used in IVECO, which are similar to the
37 management accounting practices that are used in the Libyan industrial companies, such as the NTC,
38 the Tractors Company, the Tyres Company and the Iron and Steel Company. Thus, adopting the
39 same practices in the Libyan manufacturing companies happened according to the type of industry
40 and market. One of the costs accountants emphasized that the Libyan industrial companies are using
41 the same accounting systems, by saying:
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44 “I was previously working at the Tyres Company in Tajoura before I moved to the
45 Trucks and Buses Company. But, when I moved to it I found that the Trucks and
46 Buses Company uses the same management accounting methods in the Tyres
47 Company”.
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49
50 ³ The Legal provisions of the Articles 2, 3, 4, 5 in determining Tariffs on supplied goods No.48 of 2011 have described as
51 follows: **(1)** Article 2: Determines Tariffs (customs tariff) for motor vehicles, trucks and trailers of various kinds at 10%;
52 **(2)** Article 3: Raw materials and production requirements shall be exempted from taxes, customs Fees, and other taxes
53 and fees; **(3)** Article 4: Production tax and consumption tax on locally produced goods and imported shall be reduced to
54 (0%); and **(4)** Article 5: Fees of supply services shall be cancelled.
55

The Market and Competitive Pressures

It has been argued that the change in the political system has led to an increasing competition in the local market. Consequently, the competition influenced the management accounting systems to change, such as the budget, costing system and pricing system. Some of the interviewees argued that the change in the Libyan business environment, especially after 17 February 2011, has had a significant impact in terms of changing the methods of control and management accounting for the better, such as measuring customer satisfaction and introducing the direct allocation of marketing costs system. The company has also reconsidered its selling prices i.e., reducing its selling prices as a result of the domestic competition. Therefore, this has had a direct impact on the estimated budget. On the other hand, this reduction in the prices also created a conflict of views between the managers in the company. The Head of the Overhead and Commercial Cost Department said that “*the top management sometimes determines selling prices without reference to the cost management team*”. Furthermore, the Head of the Department of the Direct Materials Purchasing stated that unfair competition with the private sector companies has a negative impact on the company's business in general. With more explanation, he said that:

“Former managers who were working in the Trucks and Buses Company embezzled a lot of money, and then they established private companies and became the company's competitors. Those competitors have affected the company's activities in general, because they sell vehicles and spare parts at cheaper prices. Consequently, the selling prices of trucks and buses in the company have become available for citizens”.

The Managers of the Company (Power)

Some of the interviewees mentioned that the personality of managers is one of the key factors that led to the change in the MACS. For example, one of the costs accountants argued that the company's rules and regulations are constantly changing by the top management which has the main role in the processes of decision-making. Also, the Chairman of the Board of Directors is an engineer and the same applies to the person acting as the General Manager of the Company who is interested in hiring engineers for the company rather than other people who have different qualifications, such as accountants. These issues therefore have made the Managers and Heads of departments in the company do what they want. With more explanation, the Costs Accountant said that:

“In the last short period, the administration of costs revealed the difference in the prices, such as the interest rate and the rate and cost price. After that, we mentioned those matters in the explanatory memorandum that was referred to the top management of the company. This memorandum shows reducing selling prices without giving any indication of whether it was as a result of a difference in the market or customer. The concern of accountants at the administration of costs is that the reduction in selling prices leads to a reduction in the cost price. But, the top management has not taken any actions regarding this issue. Also, it has not been mentioned in the monthly and annual reports of the Company's Internal Auditing”.

Furthermore, from the researcher's quite lengthy stay in the company, it was observed that the General Manager of the TBC and the General Director of Financial Operations were the key managers in the company and the other Board Directors had only a limited role in terms of control.

1
2 The final decisions concerning any subject in the company were made by these two key people. The
3 participation of other Management Committee members in any decision-making was very limited,
4 because most of the company's affairs were discussed in the General Manager Office of the
5 Company, with discussion taking place between the General Director of Financial Operations and
6 the General Manager of the company. Consequently, the top management of the company has a
7 significant impact on costing system, because it sometimes decides and makes decisions without
8 referring to the administration of costs.
9

10 11 **6.4. Change in the NTC's Management Accounting and Control Systems**

12
13 As mentioned earlier, **Sulaiman and Mitchell's (2005)** typology of change in the MACS indicated
14 that there are five various dimensions of change in the MA. In the case of NTC, two of these five
15 management accounting change dimensions were discovered. These two dimensions are: (i) the
16 modification in the management accounting information or output; (ii) the removal of a management
17 accounting system with no replacement. These two dimensions will be explained in the following
18 sections:
19

20 21 **1. Modification in the Management Accounting Information or outputs**

22
23 This type of change relates to situations where there are no new management accounting systems
24 involved, such as the estimated budget and the reporting system in the NTC.
25

26 27 *The Estimated Budget*

28
29 Some of the interviewees argued that the NTC has prepared the estimated budgets every year since it
30 was established. However, some changes have occurred in the estimated budget in recent years. In
31 the case of the NTC, the objective of the preparation of the estimated budget was not only for
32 planning and monitoring, but also for gaining access to financial resources. This pathway was
33 prompted by the Libyan government, as represented by the General People's Committee of Finance
34 (previously)⁴, which appointed some Financial Controllers who had worked in the Libyan
35 enterprises as observers. The Financial Controllers were independent of the company as their salaries
36 had been paid by the General People's Committee of Finance. This policy was adopted in the mid-
37 1980s. The main responsibility of the Financial Controllers was to monitor every day operations and
38 implement tight controls on the procedures in the companies. They had also been given the power
39 for signing Cheques and therefore they were responsible for the finances. However, at the end of the
40 1990s, this policy for monitoring had been changed, whereby the General People's Committee of
41 Control (previously) took over this policy in order to monitor the estimated budgets as well as doing
42 frequent visits in order to monitor the company's activities. After the 2011 Libyan revolution, the
43 estimated budget has been monitored by the Audit Bureau under the General National Congress
44 (GNC).
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48
49 In relation to the changes that have occurred in the estimated budget in recent years, the Head of the
50 Department of Costs and Inventory Control argued that the change in the estimated budget has
51 occurred in some items at the request of the company's Management Committee (the Board of
52 Directors) in 2009. For instance, the cash balance is set out in the estimated budget, regardless of
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54
55 ⁴ The General People's Committee of Finance is the Ministry of Finance (currently).
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1
2 whether the balance was positive or negative. This work has been done by the company's managers
3 and accountants. This means that the variances analysis and standard costing used in the budget have
4 been influenced by what the company's accountants have learnt at universities and professional
5 training centers. One of the Costs Accountants also explained that:
6

7 "the cash balance was previously set out at the end of the financial period and was
8 based on the expected input and output of the cash flow. But, the Management
9 Committee has rejected this method and said that the cash balance at the
10 beginning of the financial period had also to be included in the estimated budget".
11

12
13 In other words, he argued that in 2009, the company purchased raw materials estimated at 6 million
14 LD. Thus, the purchasing cost stands at 5 million LD, which was withdrawn from the cash balance
15 plus the value of banking facilities at 1 million LD. As a result, the company had an overdraft of 5
16 million LD, which represents the cash balance of the company. In that year, the Management
17 Committee of the company also requested from the accountants that they introduce the value of the
18 overdraft in the estimated budget at the end of that year. Therefore, the cash balance (overdraft) was
19 included in the estimated budget at the end of that year according to the instructions of the
20 Management Committee. But, that does not mean the company was losing. In a sense, the costs
21 accountant argued that if the NTC had sold the finished goods (trailers), the company could therefore
22 cover the cash balance (overdraft). Moreover, the company has money in the form of debt in some
23 companies, such as the TBC, and has not yet received that money. Therefore, if the NTC has
24 received its money from those companies, the cash balance (overdraft) will be covered by those
25 debts. In addition to the above, the Head of the Department of Costs and Inventory Control stated
26 that:
27
28

29 "the item of maintenance and wages in the estimated budget is amended every year
30 according to the requests of the company's employees and the increased number of
31 employees respectively. He also stated that the change in the estimated budget has
32 been imposed because of certain circumstances in recent years, such as the selling
33 on credit, competition or market pressures, customers, managers of the company,
34 etc".
35

36 37 ***The Reporting System*** 38

39 In the NTC, all departments prepare quarterly reports on their activities for the top management,
40 which refers them to the General Assembly in the form of a single report. The reports include data
41 related to financial indicators and non-financial performance evaluation. Information in the company
42 is also reported more broadly. In addition, the company also uses the internal reporting system which
43 includes a number of vertical reports from the departments to the top management and vice versa, as
44 well as horizontal reports between departments, such as the statement containing the amount of
45 material and labour hours required for a unit of product that is prepared in the department of
46 production and sent to the cost and inventory control department for preparing product cost, then
47 sent to the marketing and export department for pricing.
48
49

50 From reading the internal auditing reports, it was indeed clear that the Internal Auditor prepares
51 quarterly and comprehensive reports about the company's activities and the office of Auditing. The
52 internal auditing's quarterly report of 2012, for example, presents information regarding the balance
53 sheet at the end of the fiscal year, production targets and revenues. The internal comprehensive
54
55

1 reports of 2004 and 2012⁵ provided information such as the financial, administrative and technical
2 position of the company, and the problems and difficulties facing it and the appropriate solutions to
3 overcome them. However, the 2004 report provided more details compared with that of 2012.
4 Furthermore, the researchers obtained the internal auditing report of 2010 and that of 2012, and both
5 are quarterly reports. Through comparing these two reports, it was observed that the 2010 report was
6 presented on October 14th 2010 and concentrated on the company's achievements during three
7 months, i.e., the period from July 1st 2010 up to September 30th 2010. This report provides
8 information in detail about all the company's activities and the Auditing Office as well as following
9 up the previous balance sheets of 2008 and 2009, the production movement, expenses, revenues, the
10 disbursement through the bank and the company's treasury, the stores, the purchases and the
11 documentary credits. In contrast, the 2012 report was presented on October 20th 2012 and
12 concentrated on the company's activity and the Auditing Office. However, it presents a very brief
13 summary about some works in the company such as the previous balance sheets, production,
14 expenses and revenues. In this respect, some of the interviewees mentioned that there has been a
15 change in the reports. For example, the Head of the Department of General Accounts and Balance
16 Sheet emphasized that by saying:

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“There have been some changes in the reports since 2009; from the reports that contain many details to the brief reports that include graphs and information about the company's activity. This change was imposed by the Management Committee as well as the pressures from the Ministry of Industry”.

2. Removal of the Management Accounting System with no Replacement

This type of change involves the removal of a particular management accounting system (see Sulaiman and Mitchell, 2005). In the case study of the NTC, some of the interviewees pointed out that the QMS has been eliminated and there was no replacement for these systems. The following section will explain this type of change in this system.

Quality Management System

Despite the fact that the company has had the quality control office in order to monitor the production process since the 1990s, the company was not using the QMS in the regulatory control. The QMS had temporarily been used in recent years, i.e., throughout the period (2007-2010). According to the Director of the Internal Auditing Office, “*the ISO system was a burden on the company, because most employees who were responsible for using this system are engineers. Therefore, the company no longer uses this system*”. Since the 1990s up to 2006, the NTC had been controlling the production process without using the international standard (ISO) that specifies the regulatory requirements for the QMS. Also, from reading the reports and models of some departments, it was indeed clear for the researchers that the company did not use the ISO system; or the QMS (ISO 9001: 2000) had rather not been mentioned in the reports or models.

⁵ The 2004 report had directed to the General People's Committee of Industry (formerly), whereas the 2012 had directed to the Audit Bureau (currently).

1
2 The NTC introduced the QMS (ISO 9001: 2000) in 2007, but was abolished in 2010. The Director of
3 Internal Auditing Office pointed out that this system was cancelled by the top management of the
4 company owing to the following reasons: (i) the system has not offered any improvement in the
5 efficiency of producers and workers within the company; (ii) The failure to achieve an increase in
6 the sales of its products due to lack of improvement in terms of dealing with new customers as well
7 as the erroneous application of quality management in the company; (iii) The Management
8 Committee consists mostly of engineers who do not have the administrative background; especially
9 this system is a regulatory system within all the company's departments in the first place.
10 Furthermore, the manager and employees who are working at the quality control office are engineers
11 and they do not know how to deal with the QMS (ISO 9001: 2000) in the company. Therefore, this
12 has created a conflict among the employees in the company's administrations and offices,
13 particularly within the financial administration and the internal auditing office, where the heads and
14 employees are specialists in management and accounting.
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18 **6.5. Factors that Caused Change in the NTC's Management Accounting Systems**

19

20 The institutional factors (internal and external) that caused change in the NTC's management
21 accounting systems will be explained in the following sections:
22
23

24 ***The Libyan Government's Laws and Regulations***

25

26 The majority of the interviewees stated that the Libyan government's regulations have had a
27 significant impact on the estimated budget. For instance, the Director of Production Affairs
28 mentioned that employment in Libya is based mostly on social relations, which led to inflation in the
29 number of employees in all Libyan companies. However, in 2007, the Libyan state issued a
30 resolution concerning the reduction of employment in all government institutions and public
31 companies. Based on this resolution, the Ministry of Industry sent correspondence to general
32 industrial companies to inquire about the increase in the employees. He also said that the Ministry of
33 Industry has found an increase in the number of company employees. This number was 300
34 employees. Therefore, in 2007, the Ministry of Industry reduced the number of 300 employees to
35 250 employees, and 50 employees were dismissed from the company. After that, these employees
36 were transferred to the Manpower Bureau and the Ministry of Public Security according to another
37 resolutions issued by the Libyan state. Consequently, this reduction in the number of employees has
38 led to the reduction in wages in the estimated budget. Therefore, the company benefited financially
39 from the decision of the reduction. In addition, **the Libyan state has not paid much attention to the
40 public sector companies in recent years and has imposed many regulations and laws.** For instance,
41 the Director of Commercial Affairs pointed out that:
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45 “the state imposed the commercial exchange rate according to which 1.700 dinars
46 per euro becomes / is equivalent to 1.280 dinars per dollar. It also imposed taxes on
47 the companies from year to year. Moreover, the double taxation was applied when
48 purchasing supplies, such as the raw materials and the auxiliary materials. In other
49 words, calculating a tax on the supplies involved in the production process and
50 again in the sales process led to a rise in the selling price of the company's
51 products”.
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55

1
2 Moreover, after the political system in Libya was changed in 2011; the Libyan National Transitional
3 Council (LNTC) has issued new laws and regulations. These laws and regulations have been
4 implemented by the Libyan enterprises, for example, the taxation system and customs fees. So, this
5 change in tax laws has been taken into account while preparing the estimated budgets in the NTC.
6 As a result, **all these rules and regulations** have influenced the estimated budget in the NTC.
7

8 9 ***Customer Satisfaction***

10
11 The Head of the Marketing and Export Department stated that customer requirements or product
12 specifications have influenced the estimated budget. For example, in the previous years, the
13 company had produced tanks (reservoirs) at a thickness of 3 ml of iron and was recorded in the
14 estimated budget. However, another customer came and asked for reservoirs with certain
15 specifications in the same year with a thickness of 5 ml. Therefore, these specifications (e.g., an
16 increase in thickness) had been taken into account in the estimated budget (reservoirs item) in the
17 following year. Furthermore, in the same year, the Libyan army had ordered reservoirs (tanks) of a
18 thickness of 8 ml of iron to transport fuel and water to cope with the desert areas. Thus, the company
19 had calculated the cost of these reservoirs / tanks which was added in the estimated budget in the
20 following year. In this respect, the Financial and Administrative Officer emphasized that customer
21 satisfaction is one of the factors that should be taken into consideration while preparing the
22 estimated budget.
23
24

25
26 “the NTC is an integral part of the surrounding environment. Therefore, any
27 external factors (e.g. customer satisfaction on products, market policy and
28 competition) will be taken into account in preparing the management accounting
29 systems. These factors downright will provide the company with a lot of matters,
30 such as recommending, developing and adding some amendments to the
31 administrative methods. According to these factors, the company will discover any
32 problems or shortcomings in the company systems, and alert the Management
33 Committee (the Board of Directors) on the topic in early time”.
34
35

36 37 ***Copying Management Accounting Practices from Other Companies***

38
39 The NTC was a partner with the Italian Calabrese Company in terms of capital, whereby the NTC
40 has 75% and the Calabrese Company has 25%. According to the Director of the Administrative and
41 Financial Affairs, since the NTC was established in 1981, some of the employees who had worked at
42 the NTC are Italians and some of them are Egyptians. At that time, all of them were using traditional
43 management accounting systems in their own countries. Therefore, the NTC is still using the same
44 management accounting practices to date. In recent years, the only advanced technique that the
45 company has tried to apply was the QMS based on the ISO 9001 standard. This system was applied
46 in other Libyan companies (e.g., TBC). But, unfortunately, the company has failed in its application.
47 This system was applied in 2007 and was later abolished in 2010.
48
49

50 51 ***Competitive Pressures***

52
53 Some of the interviewees argued that the market pressures (unfair competition) have influenced the
54 company in terms of reducing costs. For example, the TBC began to compete with the NTC. In other
55 words, the Head of Marketing and Export Department said that:
56
57

1
2 “when the customer comes to the TBC in order to purchase a truck, the TBC
3 asks the customer, what kind of trailers they want to have installed on the truck?
4 This means that the TBC seeks to manufacture, or provide a trailer for him. In
5 addition, after the revolution of February 17th, 2011, some former directors of
6 the TBC were dismissed because they were supporters of the Gaddafi’s regime
7 and embezzled a lot of money from the TBC. These managers have got the
8 money and established a private company in Libya, the Technology Company”.

9
10
11 The Head of the Marketing and Export Department also emphasized that the private company has
12 obtained the companies’ contracts that were in the TBC. Thus, this private company became a
13 competitor with the TBC and NTC. Although the NTC contains manufacturing stages and each stage
14 has its costs and the cost of manufacturing in Libya is very high, for example, the NTC buys iron
15 from the Steel and Iron Company in Misurata city, Libya. In the field of trading of trucks and buses
16 in Libya, the private companies do not have manufacturing costs in their activities, because they can
17 bring in trucks and reservoirs ready from abroad. Nevertheless, the Libyan state - owned
18 manufacturing companies and private companies are importing goods and raw materials at the same
19 price. Therefore, the Libyan state is supposed to reduce costs for public companies.

20
21
22 Furthermore, in 2000, the situation changed as a result of the deregulation of the Libyan economy.
23 This created a competition with the private sector which offers better selling prices and good
24 salaries. Therefore, this drove some excellent producers in the company to move to work in the
25 private sector, where the number of producers reached 20 in order to improve the standard of living
26 and getting better salaries up to 3 times the salary offered by the NTC. Accordingly, the competition
27 with local traders sometimes has an effect on the estimated budget of the NTC through reducing
28 costs or expenses in the company. Thus, if the NTC wants to be able to compete in the market; it
29 should reduce its costs in spite of the fact that this reduction has a negative side on the company. In
30 addition to the above, after February 17th, 2011, the situation also changed as a result of the
31 deregulation of the Libyan economy due to the change in the political system. This increased a
32 competitive market environment and influenced negatively the sales of the NTC. As the Director of
33 Internal Auditing said:

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35
36
37 “we had been working as a monopoly company supported by the Libyan state, but
38 the economic deregulation after the Libyan revolution in 2011 has decreased this
39 support and put us in a competitive environment, with many other operational
40 problems created by the Libyan state policies”.

41 42 ***The Managers of the Company***

43
44 The Head of the Department of Costs and Inventory Control pointed out that during planning for the
45 preparation of the estimated budget in the costs department, the financial administration sends
46 correspondences to the managers and heads of departments in the company to know their opinions
47 and demands concerning the estimated budget. For instance, the financial management asks the
48 production administration about the number of units that can be produced in the future. For example,
49 the production administration asks the purchase department to provide spare parts for machinery.
50 Thus, this matter influences the estimated budget through reducing the costs in the following year.
51 The financial administration also inquires the commercial administration about the number of units
52 that can be sold in the future. In addition, inquiring from other departments such as the marketing
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1
2 and export department whether they have received purchase orders from customers, as well as to
3 inquire from the purchase department, if they can buy spare parts for machinery. Thus, all of this
4 coordination is organized by the financial administration of the company to reach a satisfactory
5 agreement out of all departments. Furthermore, the Director of the Internal Auditing Office stated
6 that the change in the Management Committee has influenced the management accounting practices
7 by saying that:
8

9
10 “the current management committee started to change some things in the
11 company, whereby its members seek to offer something different every month,
12 even the estimated budget. But, in the past, the former members of the
13 management committee were not given a chance for the reforms in the
14 company, because they were meeting once a year and they changed simple
15 things within the company”.
16

17
18 In addition, he said that “the Management Committee has compulsory instructions directed to all
19 departments of the company in order to change the style of reports; from comprehensive and detailed
20 reports to brief reports. On the other hand, he said that there are conflicts between the current
21 managers of the company. In other words, the Financial Manager of the company is acting with
22 complete freedom and without consulting other managers in the company, such as the recruitment of
23 new staff, giving rewards without reference to other managers, and also giving financial subsidies
24 from the value of the stationery.
25

26 27 **7. Comparative Analysis and Discussion**

28
29 In this study, the analysis of the two case studies, the TBC and the NTC focused on the nature of
30 change in the MACS as well as the internal and external factors that may affect the MACS,
31 including the institutional and competitive pressures along with intra - organizational power
32 relations. The purpose of this section is to discuss the findings vis - à - vis the institutional theory
33 framework which underpinned the study and was developed in section 3 of this paper. The
34 discussion makes sense of the MACS in both companies. **In this section, there is a comparison of the
35 most important findings reached by the two case studies which are referred to in section 6.**
36 According to Yin (2003, p. 34), the development of consistent findings over multiple cases
37 contribute to more robust findings. Hence, the differences between the detailed case studies are also
38 of interest.
39

40 41 **7.1 The Nature of Change in the MACS**

42
43 This study relied on Sulaiman and Mitchell’s (2005) typology of management accounting change.
44 Their typology proposed five categories of management accounting change, namely: (1) addition, (2)
45 replacement, (3) output modification, (4) operational modification and (5) reduction. In the current
46 study, the main results regarding the nature of change (types of change) demonstrated that the
47 change in the MACS is not a homogeneous phenomenon in the two selected companies. This finding
48 is consistent with those of Granlund (2001) and Chanegrih (2008) who pointed out that there is no
49 generally agreed definition of management accounting change. In the case of the TBC, for example,
50 the findings revealed that there are two types of management accounting change. Firstly, the
51 introduction of new systems (addition) was observed through introducing the following systems:
52 strategic planning, the QMS, performance measurement in terms of customer satisfaction and direct
53 allocation of marketing costs. Secondly, modification in the management accounting information
54
55

(output modification) was also remarkable in the following systems: the estimated budget and the reporting system.

In the case of the NTC, the findings illustrated that there are two types of management accounting change. Firstly, modification in the management accounting information (outputs modification) was observed through modifying the following systems: the estimated budget and the reporting system. This type of change is similar to first case: the TBC. Secondly, the removal of a management accounting system with no replacement (reduction) was prominent in the NTC through reducing the QMS (ISO 9001: 2000) in 2010. Arguably, the results of both companies show that various types of management accounting change (addition as well as output modification and reduction) are represented in some of the MACS, with the exception of replacement and operational modification, which were not observed in any of the studied companies. Table (2) summarizes the types of change in the MACS in both companies.

Table (2): A Typology of Management Accounting Change in the TBC and the NTC

Dimensions of MA change	MACS in the TBC	MACS in the NTC
<i>Addition</i>	<ol style="list-style-type: none"> 1) Strategic planning. 2) QMS. 3) Measurement of performance in terms of customer satisfaction. 4) Direct allocation of marketing costs. 	
<i>Output Modification</i>		<ol style="list-style-type: none"> 1) The estimated budget. 2) The reporting system.
<i>Reduction</i>	<ol style="list-style-type: none"> 1) The estimated budget. 2) The reporting system. 	<ol style="list-style-type: none"> 1) QMS.

7.2 Institutional Isomorphism and the MACS in the Studied Companies

This section demonstrates how MACS in the two studied companies were shaped by these isomorphic pressures / factors. It has been argued that the design and operations of the MACS in the two companies are inextricably related to the changes that have taken place in the institutional environment (Collier, 2001; Tsamenyi, *et al*, 2006). It will be demonstrated that certain aspects of the structures, policies and processes of the two companies illustrate conformity with the rules and regulations expressed by external components such as the government and society (DiMaggio and Powell, 1983). For instance, the two companies had to work within the rules imposed by the Libyan state or the Ministry of Industry in order to be able to get external legitimacy. It is also argued that

1
2 the MACS are shaped by several institutional factors. These institutional factors and their impact on
3 the MACS of the two companies are discussed under the three types of isomorphism in the following
4 sections.
5

6 7 **7.2.1 Coercive Isomorphism and the MACS**

8
9 Institutional theory proposes that some institutional fields contain influential environmental agents
10 imposing structural forms or practices on subordinate organizational units (see for example,
11 DiMaggio and Powell, 1991; Carpenter and Feroz, 2001). This relates to coercive isomorphism and
12 happens as a result of the pressures from those that the organization relies on externally such as
13 external resource providers, including the government and the credit markets as well as the
14 **regulatory environment**. Therefore, coercive isomorphism is concerned with how organizations are
15 constrained by external resource providers (Oliver, 1991). According to Jan *et al* (2012, p. 330),
16 coercive pressures are defined as *“both formal and informal pressures exerted on social actors to*
17 *adopt the same attitudes, behaviors and practices, because they feel pressured to do so by more*
18 *powerful actors”*. They also mention that there are two types of coercive pressures, which are
19 regulation and competition (p. 331). In relation to the estimated budgets in the TBC and the NTC,
20 some findings are related to coercive isomorphism. This indicates that the influence on the MACS
21 came from institutional pressure. The estimated budgets of both companies have been affected by
22 political pressures and the Libyan government’s laws and regulations (or the Ministry of Industry’s
23 regulations), which are considered as coercive pressures (regulatory pressures). In this regard, Jan *et*
24 *al* (2012, p. 331) pointed out that *“regulatory pressures may arise from government and*
25 *professional regulatory agencies”*. In relation to political influence, DiMaggio and Powell (1983, p.
26 150) argue that coercive isomorphism *“stems from political influence and the problem of*
27 *legitimacy”*. In the current study, it was found out that political pressure for change is a major
28 pressure in the Libyan industry sector. For example, an embargo was imposed by the UN and the
29 USA on Libya during the 1990s. Economic factors such as the UN’s and American economic
30 sanctions also had affected the day - to - day activities in both companies and clearly hindered the
31 management and control processes. Consequently, both companies were not able to import spare
32 parts from abroad except through other countries adjacent to Libya. However, the costs of these
33 spare parts were very high given the lack of foreign currency. Furthermore, the political decisions
34 issued by the government under Al-Gaddafi played a huge role in this respect. All these types of
35 pressures negatively affected the estimated budget. Thus, the political factor influenced the MACS
36 in the state - owned enterprises. Many previous studies in different contexts have indicated similar
37 findings with the above finding, for example the ones undertaken by Hoque and Hopper (1994,
38 1997), Uddin and Hopper (2001), Wickramasinghe and Hopper (2005) and Uddin and Tsamenyi
39 (2005). The research’s finding is also consistent with Musa’s (2005, p. 237) whose case studies of
40 three privatized factories in Libya revealed that *“as a result of shortage in raw materials and spare*
41 *parts, none of these factories achieved its targeted production. This finding affected the budgeting*
42 *system in these factories, as managers were unable to predict and estimate future circumstances”*.
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49 **7.2.2 Mimetic Isomorphism**

50
51 In this study, mimetic isomorphism can be seen in some events of both companies. In a sense, both
52 companies were established as joint ventures with Italian companies with a similar percentage of
53 partnership which is 25% of the capital. Both companies copied the same traditional management
54 accounting practices used in the two Italian companies, IVECO and Calabrese. Thus, the two
55

1
2 companies, the TBC and the NTC imitated the same traditional management accounting and control
3 systems used in the Italian companies, including planning, controlling, costing, directing and
4 decision making. Therefore, the change occurred as a result of copying these systems. In addition,
5 the Ministry of Industry requested from the Libyan manufacturing companies to apply such systems
6 as the costing system at their inception. These pressures by the Ministry played a prominent role in
7 imitation amongst organizations. Thus, these systems or practices also are similar to those applied in
8 other Libyan manufacturing companies. This reflects mimetic isomorphism. Furthermore, both
9 companies adopted the use of computer systems in all departments within the companies in general
10 and in accounting practices in particular. Thus, this change from manual to computing systems in the
11 TBC and NTC can be seen in the form of mimetic isomorphism. These findings are consistent with
12 the following argument: *“The model of mimetic processes [...] looks particularly fruitful...It*
13 *compresses the idea that companies imitate generally accepted models of operation from each other*
14 *in order to gain as much legitimation for their operation as possible from their operating*
15 *environment”* (Granlund and Lukka, 1998, p. 206). The finding mentioned above is also consistent
16 with that of Zoubi (2011, P. 238) who studied two Libyan privatized organizations and observed that
17 the companies imitated each other (mimetic isomorphism). He pointed out, for example, that *“both*
18 *companies adopted the use of computer systems in all areas within the organizations generally and*
19 *in accounting particularly”*. Mimetic isomorphism is particularly important for the companies
20 studied in Libya because they are under pressure to appear innovative and, as a result, they tend to
21 model themselves on the foreign companies that they perceive to be more legitimate or successful
22 (DiMaggio and Powell, 1983, p. 152). Although the two companies, the TBC and the NTC have
23 covered the five components of the MACS, including planning, controlling, costing, directing,
24 decision-making systems (see for example, Libby and Waterhouse, 1996; Waweru *et al*, 2004), there
25 are, nonetheless, some differences regarding the MACS sub - systems and practices of the two
26 companies. For instance, the strategic planning system and the ISO 9001 system are being used by
27 the TBC. However, such systems have not been employed within the NTC.

32 33 **7.2.3 Normative Isomorphism**

34
35 In the two Libyan companies studied, the study found that there are some potential normative
36 influences on the design and use of the MACS. These normative influences are professional and
37 organizational characteristics (e.g., the number of units and the number of employees). In relation to
38 professionalization, the MACS of both companies (the TBC and the NTC) have been influenced by
39 what managers and employees have learned at Libyan universities and professional training centers.
40 Additionally, the hiring of experts was from abroad, for example and the costing system in both
41 companies was prepared by some Italian as well as Egyptian experts in accounting. This has resulted
42 in the characteristics of professionalization, which are important institutional components of
43 normative isomorphism (see DiMaggio and Powell, 1983, 1991). Thus, these pressures highlight the
44 role of university graduates and foreign experts in accounting in the convergence towards
45 homogenization of the MACS in Libyan companies (see also Granlund and Lukka, 1998). The result
46 mentioned above is congruent with the finding of Zoubi (2011, p. 232) who found out that
47 management accounting systems have been influenced by normative pressures, such as universities
48 and research centres as professional bodies. In the case of the NTC, organizational characteristics
49 (e.g., the number of units and the number of employees) were identified as the form of normative
50 isomorphism. These organizational characteristics may determine the range of possible change in the
51 MACS such as the estimated budget. These findings reported here are consistent with those of
52 Hussain and Hoque (2002) who found out that the experience of professional and organizational
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1
2 characteristics are considered to be influential forces on the performance measurement practices
3 (PMS) design in service organizations. They also consider these factors as normative influences (see
4 Hussain and Hoque, 2002, p. 163). However, the above finding about the organizational
5 characteristics as normative influences is not similar to Zoubi's (2011) study findings of two Libyan
6 privatized organizations.
7

8
9 Despite the aforementioned normative pressures in our case studies, the study's results are
10 inconsistent with some of the findings of the preceding studies in management accounting, in which
11 the role of management accounting has changed (Scapens, 2000). In a sense, the management
12 accounting literature indicated that the normative pressures lead to change the role of management
13 accountants. Nonetheless, this has not occurred in the TBC and the NTC and the barriers still exist
14 between the managers and accountants in both companies. In this respect, Granlund and Lukka
15 (1998, p. 201) provide an explanation for this situation that referred to the argument mentioned
16 above in this section as follows: *"A lot has recently been written especially in the UK and the USA
17 about the change in the accountants' role, arguing for the need for this change in a normative style.
18 Empirical evidence on the realization of these pleas, or on their emergence or change tendencies in
19 practice, is so far scarce. Our evidence indicates that these claims are increasingly finding their real
20 life counterparts in Finnish management accounting practice. Overall, it seems that the Finnish
21 management accountant profession is trying to actively answer the current managerial challenges
22 and information needs"*.
23
24

25 **7.3 Market Forces and the MACS**

26
27 This section discusses how the MACS in the two studied companies were shaped by pressures from
28 the competitive environment of the companies. In our case studies, the TBC was dominating the
29 whole Libyan domestic market in terms of its products of trucks and buses. This is also the case of
30 the NTC in the production of trailers. In the 2000s, the situation changed as a result of deregulation
31 of the economy. This created a competitive market environment and affected negatively the sales of
32 the two companies. Both companies have encountered market competition mainly from both private
33 Libyan companies and foreign products in terms of the selling prices and product design. This
34 competition has affected the financial performance of both companies. The change in emphasis also
35 affected the MACS in both companies.
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38
39 In the case of the TBC, competition has affected the company's MACS such as strategic planning,
40 performance measurement in terms of customer satisfaction, the cost and pricing system and the
41 estimated budget. Competition has been considered as the main factor in design and implementation
42 of new management accounting system (see Amat *et al*, 1994; Fadaly, 2008). For example, strategic
43 planning was introduced to the TBC as a result of the increasing competition. The Director of
44 Strategic Planning emphasized that the company must adopt strategic planning processes to thrive in
45 the new competitive environment. This finding is consistent with Moll (2003, p. 192) whose case
46 study was Griffith University in Australia and pointed out that "universities must adopt strategic
47 planning processes to thrive in the newly competitive and commercial environment". As argued by
48 Mia and Clarke (1999), If an organization faces increasing competition in its market and yet fails to
49 adopt and implement appropriate strategies to deal with such competition, its performance will
50 decrease. In relation to performance measurement in terms of customer satisfaction, the TBC was a
51 monopoly company and was selling its products according to the orders of customers. However, this
52 situation has recently changed completely due to the competitive market conditions. Therefore, the
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1
2 TBC has implemented some extra services aiming to satisfy customers. This result is congruent with
3 that reached by Mohammed (2010, p. 264) who argued that the increasing competition in the
4 banking sector has created the impetus for change; hence the shift in focus on customers and the
5 strategies of competitors. Hussain and Hoque (2002) also found out that competition is one of the
6 factors which affect performance measurement systems.
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9 In case two, the NTC was also dominating the Libyan domestic market regarding the production
10 of different types of trailers. However, in 2000, the situation changed as a result of deregulating the
11 Libyan economy. This created a competition with the private sector which offers better selling prices
12 and good salaries for employees. Therefore, this drove some excellent producers in the company to
13 move to work in the private sector, where the number of producers reached 20, in order to improve
14 their standards of living and get better salaries up to 3 times the salary offered by the NTC.
15 Consequently, the competition with local traders sometimes has an effect on the estimated budget of
16 the NTC through reducing the costs or expenses in the company. Thus, if the NTC wants to be able
17 to compete in the market; it should reduce its costs in spite of the fact that this reduction has a
18 negative side on the company. It was also found in case two that the market pressures (unfair
19 competition) have influenced the company in terms of reducing costs and selling prices.
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22 **7.4 Intra - organizational Power Relations and the MACS**

23
24 Prior NIS analysis has been criticized for ignoring the issue of power relations between the different
25 actors and its inability to demonstrate the role of management in accommodating or reconciling the
26 competing interest (see for example DiMaggio and Powell, 1983). In this section, the debate
27 addresses one of the limitations in NIS. This limitation in NIS has led some recent researchers in
28 NIS to consider the issue of power and agency. For instance, Collier (2001) and Modell (2002)
29 recently encouraged other studies in management accounting using NIS to expand their analysis to
30 comprise the relations of power. Organizational power relationships engender conflicting effects,
31 either driving or hindering change in the organization's systems (see for example, Burns, 2000;
32 Collier, 2001; Tsamenyi *et al*, 2006). Collier (2001) pointed out that organizational power is
33 conflictual when the interests of actors are divergent. In contrast, Giddens (1976) and Burns (2000)
34 mentioned that power has the potential to be enabling characters if there are common interests
35 among different groups in an organization. In addition, the link between legitimacy and power has
36 been debated in the literature. For example, Collier (2001, p. 467) argued that "*the power of*
37 *institutions arises both from the need for legitimation and from isomorphic processes*". Therefore,
38 organizations need the support of governmental bodies where their operations are regulated.
39 Organizations also rely on the acquisition of resources to support purposive activity. The role of the
40 state, particularly through legitimation processes, is a powerful one and this is obvious in some
41 organizations (ibid, p. 467). Oliver (1991) also argued that the role of interest and agency affects the
42 institutionalization of organizational practices. In our case studies (the TBC and the NTC), the
43 evidence gathered during the study revealed that organizational power relations were prevalent in the
44 two companies studied and this power shaped the MACS. The remainder of this section discusses
45 issues around intra - organizational power relations relating to some of the MACS in each case of the
46 companies studied.
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52 In the case of the first company, the TBC, it was identified that there was power interplay
53 between the top management, offices and other administrations in the company. This interplay of
54 power affected the design and use of the MACS. In the case of the second company, the NTC, it was
55

found that the Libyan government, as represented by the Ministry of Finance, appointed some Financial Controllers who had worked in Libyan organizations as observers in the mid 1980s. As mentioned earlier, these pressures can be seen as coercive isomorphism forced on the companies by the Libyan government, as well as a convergence factor that leads to harmonization between companies operating in the same environment (see Granlund and Lukka, 1988). The main task of financial controllers was to monitor daily operations and implement tight controls on the procedures in the companies, including the estimated budgets. They had also been given power for signing cheques and, therefore, were responsible for the finances. Thus, they used power over resources, which were related to the control of money (Hardy, 1996, p. S7). In this case, the conflict was created between the top management and financial controllers through the application of control on the estimated budgets. This conflict between the top management and the financial controllers is identical to Hardy's classification of power over resources such as "*information, expertise, political access, credibility, stature and prestige, access to higher echelon members, ..., rewards and sanctions*" (Hardy, 1996, p. S7). On the other hand, the top management employed its power over processes to prevent the financial controllers from participating in decision - making processes. This conclusion is consistent with the findings of Zoubi (2011, p. 181), who found out that "*there was a conflict between the senior management and the financial controllers over the application of the budgetary control approach*" in his two selected Libyan privatized organizations.

8. Conclusion

This study is about MACS change in two selected state – owned manufacturing companies (the TBC and the NTC) in the Libyan context **over the period of time stretching from 2003 to 2013**. It adopted a case-study" approach based on triangulation methods includes semi-structured interviews, document analysis and observation. The study revealed a number of interesting issues. The findings illustrated that there are three different types of management accounting change. These types of change are (i) the introduction of new systems (addition) in the TBC including strategic planning, the QMS, direct allocation of marketing costs and performance measurement in terms of customer satisfaction; (ii) modification in the management accounting information (output modification) in both companies including the estimated budget and the reporting system and (iii) removal of a management accounting system with no replacement (reduction) in the NTC such as removing the QMS. Moreover, both companies have clearly witnessed gradual changes in some of the MACS. It should also be noted that most of the MACS used in both companies are traditional systems. The paper has also discussed several findings vis - à - vis the new institutional theory framework which underpins the study. The uncertain environment in Libya (e.g., the uncertain economic and political circumstances) seemingly created pressures on both companies to improve their MACS, including the planning systems, controlling systems, costing systems, directing systems and decision - making systems. It is the contention in the present research that the pressures exerted by these external factors forced the two companies to adopt new structures and processes, including the MACS.

The theoretical framework of the study used to analyze the findings is based on the assumption that institutional forces (coercive, mimetic and normative influences) interact with market forces and intra - organizational power relations to influence the design and use of the MACS (see Tsamenyi, *et al*, 2006). It can be concluded that the isomorphic changes in the MACS in the two selected manufacturing companies have been driven by several factors or influences including political pressures and organizational legitimacy, the Libyan government's laws and regulations, leading organization's pressures (e.g., ISO), customer satisfaction, copying the best practices from other

1
2 companies, the organizational characteristics, competitive pressures and power (the managers of the
3 companies). The findings supported the view that the internal and external environments
4 surrounding an organization have effects on its management accounting systems (Otley, 1980). It is
5 also concluded that the notion of contingency is still relevant to institutional theory.
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8 This study has made the following contributions to the existing literature in a number of ways.
9 Firstly, the study contributes to the limited studies on the MACS change in developing countries in
10 general and within the Libyan context in particular, although generalization from this study's
11 findings is not the aim of this research. This study provides a wider and deeper understanding of the
12 MACS and the influence of various institutional factors (e.g., the social, cultural, economic and
13 political context) on shaping these MACS in the Libyan public sector, particularly the state - owned
14 manufacturing companies: the TBC and the NTC. It also contributes to the literature on management
15 accounting as the study is carried out using comparative case studies between the two companies.
16 Secondly, the majority of studies have focused on change in management accounting within
17 organizations in developed countries (e.g., Innes and Mitchell, 1990, Cobb et al, 1995, Libby and
18 Waterhouse, 1996, Burns and Scapens, 2000, Williams and Seaman, 2001), and most of them
19 reviewed it as an outcome. However, these studies have given a little attention to the nature of
20 change or different types of change. The current study therefore contributes to the extant literature
21 through identifying the nature of change or different types of change in management accounting (see
22 also Sulaiman and Mitchell, 2005). The findings of this study indicate that change in the MACS is
23 not a homogeneous or uniform phenomenon. The empirical evidence also reveals that the changes or
24 developments occurred in traditional MACS practices, rather than advanced MACS, such as the
25 ABC and the BSC. Thirdly, the current study draws on NIS perspective (DiMaggio and Powell,
26 1983; 1991) as a theoretical framework to interpret the findings. In a sense, the NIS is used to
27 interpret how MACS operates in two Libyan public manufacturing companies. NIS researchers
28 believe that the institutional environment of the organization shapes the design and operation of
29 practices such as MACS. The study has contributed to the increasing use of the NIS to explain the
30 MACS (Collier, 2001, Hussain and Hoque, 2002 and Tsamenyi et al, 2006). The discussion provided
31 in Section 4 of the paper shows that, methodologically and empirically, the NIS is a suitable
32 framework for explaining MACS practices of the two companies studied. Thus, the integration of
33 institutional (coercive, normative and mimetic pressures), competitive and intra - organizational
34 power factors is the main contribution made by this paper to the NIS. As mentioned previously in
35 this paper, the earlier work of DiMaggio and Powell (1983) on the NIS has been criticized for
36 ignoring market forces and intra - organizational power relationships. This limitation is being
37 addressed in recent studies on the NIS (e.g., Collier, 2001 and Tsamenyi et al, 2006) and this paper
38 makes a theoretical contribution to this emerging literature on the NIS and MACS research. Finally,
39 the present study has adopted the case study approach to understand how MACS operates in two
40 Libyan public companies in the industrial sector. It has used triangulation of qualitative research
41 methods, including semi - structured interviews, observation and document analysis. The qualitative
42 research methodology employed in this study is based on Laughlin's (1995) framework; the "middle
43 range thinking approach". Laughlin (1995, 2004) provides a useful framework for the positioning of
44 accounting research as well as the selection of an appropriate methodology (c.f., Roslender, 2013).
45 From a developing country's perspective, it has also been suggested that case studies are more
46 appropriate to study MACS practices because of the prevalence of social and political factors (Uddin
47 and Hopper, 2001; Uddin and Tsamenyi, 2005). The case study method has been emphasized in the
48 management accounting research as it provides an opportunity for the researcher to interact with the
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research environment (Hopper and Powell, 1985). In the current study, the use of case studies enabled the socio - economic and political issues to be revealed. Therefore, this paper has made a methodological contribution to case study methodology in management accounting research.

However, there are several implications of this study for future research. Firstly, the aim of the current study is not to generalize the results. Therefore, in order to be able to generalize the results to other manufacturing organizations in Libya more case studies on other manufacturing organizations are needed. Alternatively, future research could adopt survey approaches whereby a wider sample of organizations will be studied. By using the methods mentioned above, future research can also study change in management accounting in other public sectors in Libya (such as service, financial, oil, etc.). Secondly, this study is constrained to Libya. Industries in other developing countries differ from their Libyan counterparts. This may be so because of legal and regulatory constraints and economic policies or structures that might differ among countries. Therefore, this research might be replicated in other developed and developing countries to compare the findings among countries in order to provide further insight on the influence of country - specific factors (country's characteristics) on management accounting and control practices. Thirdly, it would also be interesting and insightful topic to specifically compare change in management accounting during stable and turbulent conditions within the same setting. Fourthly, future research could focus on alternative theoretical perspectives for the investigation of the process of change in management accounting such as agency theory, structuration theory and actor - network theory. Finally, the findings of this research indicated that there is no evidence of the use of so - called advanced management accounting techniques such as the ABC and the BSC. Therefore, future research should pay attention to the possibility of implementing such techniques in Libyan organizations and other developing countries.

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