The interplay between Strategic Management Accounting and Strategic Management

"Case Studies from Libyan Public Sector"

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Abstract:

This paper discusses and analyses two case studies from Libyan Public Sector in order to investigate the interplay between Strategic Management Accounting, and Strategic Management framework based on the deliberate-to-emergent strategy-formulation continuum, developed by Mintzberg and Waters (1985); the strategic management systems of the two Cases are examined, using Simons' (1995) levers of control: diagnostic control systems, interactive control systems, boundary systems and beliefs systems. Whittington's (2001) Generic Perspectives on Strategy is also used in order to understand the conceptual significance of the ideological difference between free-market and more 'social-market' economies, between shareholder and stakeholder approaches.

1. Introduction:

Strategic Management Accounting (SMA) is the provision of information to support the strategic decisions, which usually involve the longer-term, have a significant effect on the organisation and, although they may have an internal and external elements (Innes, 1998). Simons (1990) defined SMA as a component in the strategy formulation. More recent contributions to SMA have emphasized the role of management accounting in formulating and supporting the overall organisation's competitive strategy, in order to, encourage behaviour that consistent with an organisation's strategy. Moreover strategic control and SMA are focused on the existing relations between strategic management and management control. Anthony (1965:17) explains that management control is

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"the overall of the financial and accounting tools of check on the basis of predetermined objects". Although, the concept of strategic control emerged during the 1970's (Schendel & Hofer, 1979), the concept of SMA was formulated in the beginning of the 1980's (Bromwich, 1990). The nature of the relation between strategic management and management accounting was illustrated in the strategy literature by characterizing two trends (Band & Scanlan, 1995). The first one focuses on the company in its environment. The second one focuses on the study of the processes of strategy formulation.

Attention is now being given to developing an integrated framework of performance measurement (PM) that can be used to clarify, communicate and manage strategy implementation , notwithstanding, little research has been undertaken on the extent to which companies use SMA (Drury, 2005: 999).

This paper aims to empirically, investigate the interplay between SMA and SM, in order to, gain in-depth understanding of the interactions between both. Therefore, the remainder of the paper is preceded as follows. First, the research methodology and method; Second the SMA and Strategy Formulation; then SMA and Strategy Implementation; followed by SMA and Control; and finally this paper ends with summary and conclusions.

2. Research Methodology and Method:

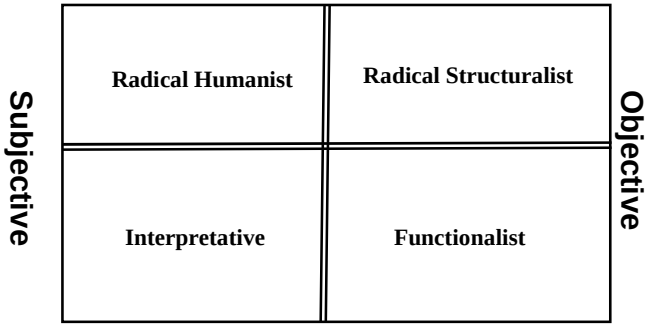
2.1 The Burrell and Morgan Paradigms.

Burrell and Morgan framework is a two dimensional matrix composed of four paradigms, as illustrated in figure (1) Each paradigm shares common features with its neighbours in both the horizontal axis (subjective-objective dimension) which represents their assumptions concerning the nature of science, and the vertical axis (regulation- radical change dimension) which represents their assumptions concerning the nature of society . This framework offers four paradigms that Burrell and Morgan claimed were mutually exclusive. And, importantly, this framework subsequently created the ground for a range of classifications in the accounting literature (Hopper and Powell, 1985; Chua, 1986).

These paradigms presented four different views of social theory, namely: (1) Functionalist, (2) Interpretive, (3) Radical Structuralist and (4) Radical Humanist. These four paradigms define four views different of the social world based upon disparate theoretical assumptions concerning (1) the nature of science and (2) the nature of society (Burrell and Morgan, 1979) each of the four views of the social world will now be described in more detail.

Figure (1) Four Paradigms of Social Theory

THE SOCIOLOGY OF RADICAL CHANGE



THE SOCIOLOGY OF REGULATION

Source: Burrell and Morgan (1979)

The functionalist paradigm is firmly rooted in the sociology of regulation and an objectivist point of view. Objectivism is grounded in realist ontology, positivist epistemology, deterministic human nature and nomothetic methodology. A functionalist view assumes that the social world is composed of empirical artefacts and relationships that can be identified and measured through scientific methods, and its overall approach is to attempt to provide rational explanations of social affairs. Reality is assumed to exist outside an individual, and its understanding must be approached from a realistic perspective. Furthermore, future reality is deemed to be predictable, measurable and based on cause-and-effect relationships. The maintenance of order, stability and equilibrium is viewed as being of paramount importance.

The interpretive paradigm is premised on the sociology of regulation and a subjectivist view of the social science. Characteristics would include nominalist ontology, anti-positivist epistemology, a voluntarist view of human nature and ideographic methodology. The interpretive paradigm aims to understand the fundamental nature of our social world (i.e. the world as it is) at the level of subjective experience. It views the social world as ongoing social processes created by individuals, and that social reality is a collection of assumptions and shared meanings.

Radical humanist paradigm adopts a subjective view of reality, and is concerned with explaining radical change within society. This paradigm has much in common with the interpretive paradigm, as it is characterised by nominalist, anti-positivist, voluntarist and ideographic methodology. Human consciousness is dominated by ideological super-structures with which

individuals interact. In turn, these drive a cognitive wedge between individuals and their true consciousness, which prevents human fulfilment. Social theorists are concerned about social constraints that impede potential human development. They use this paradigm to justify revolutionary change. The approach to science is that of anti-positivism and attempting to overcome the limitations of existing social perspectives.

Radical Structuralist paradigm adopts an objective view of sociology of radical change in society. Scholars who adopt this paradigm are normally committed to radical change and emancipation, using analysis that emphasises structural conflict, modes of domination, contradiction and deprivation. In so doing radical structuralism is premised on assumptions of realism, positivism, determinism and monotheism. Whereas radical humanists base their views on human consciousness, the radical structuralisms concentrate upon structural relationships within a realist social world. Radical change is an inherent part of the structural relationships, hence, society is characterised by conflicts which generate radical change through political and economic crises (Burrell and Morgan, 1979: 34).

2.2 Research Paradigm.

The research sets out to explore the interplay between SM and SMA in the Libyan public sector (LPS) organisations. Organisations and society are viewed as socially-constructed systems of reality (Burrell and Morgan, 1979; Morgan and Smircich, 1980; Hopper and Powell, 1985; Chua, 1986). The SMA systems are also socially constructed. Their design and implementation are influenced by (1) stakeholders who have an interest in Companies' performance, (2) their environments (economic, political, and social). The researcher believes that social reality is constructed by human beings. This view represents the nominalism position of the ontological assumptions based on Burrell and Morgan framework. This position of the ontological assumption has implication for this research approach. Different people in the system would be using language, actions and routines as a medium of communication. Therefore, this locates this study at the subjective position of the Burrell and Morgan framework, especially during the data collection stage and in deciding how data would be interpreted. Accordingly, this eliminates radical structuralism and functionalist paradigms, and is likely to be conducted within the interpretive or radical humanist paradigms.

The nature of this research is exploratory; the researchers are seeking to explore the interaction between SMA and SM. Although a substantive literature on both field exist, the majority of the extant work relates to well-developed economies that espouse “free-market” ideology and emphasise the maximisation of shareholder wealth as a primary objective of corporations.

Both the practice and conceptual development have been largely dominated by western corporations, management consultants and academics (Hopper *et. al,* 2001: 281). In recent years there has been an emergence of a stakeholder approach especially in Europe (Hopper *et. al,* 2001: 281), the economic and social ideological, context of such literature remains substantially different from that of Libya. Moreover, there is a dearth of information on SMA as well as practices in Libya; indeed there is no published, or otherwise available, research within Libya. Thus, this study utilises the extant literature to inform research inquiries and to focus and to determine the general boundaries of the research. However, this research does not test hypotheses as such because the extant principles of SMA relating to, for example, strategic objectives, implementation arrangements and control processes are grounded in empirical contexts and ontological assumptions that cannot be attributed with confidence to the LPC. Therefore, a qualitative research is approach best suited to the type of this study; Creswell (1994: 10) suggested that:

> "For the qualitative studies the research problem needs to be explored because little information exists on the topic. The variables are largely unknown, and researcher wants to focus on the context that may shape the understanding of the phenomenon being studied. In many qualitative studies a theory base does not guide the study because those available are inadequate, incomplete, or simply missing".

In the same vein Chua (1986: 601) stated that:

> "Interpretive science does not seek to control empirical phenomena; it has no technical application. Instead, the aim of the interpretive scientist is to enrich people's understanding of the meanings of their actions, thus increasing the possibility of mutual communication and influence".

This research is, essentially, seeking to understand the construction of the social reality. However, it dose not seek to explain and predict what happens in the social world by searching for laws and causal relationships between its elements. These make it possible to accept anti-positivism as an epistemological assumption because, according to Burrell and Morgan, anti-positivism" is firmly set against the utility of a search for laws or underlying regularities in the world of social affairs; for the anti-positivist, the social world is essentially relativistic and can only be understood from the point of view of the individuals who are directly involved in the activities which are to be studied; one has to understand from the inside rather than the outside" (Burrell and Morgan, 1979: 5). Hopper and Powell (1985:446) stated that:

> "People constantly create their social reality in interaction with others. It is the aim of an interpretive approach to analyse such social realities and the ways in which they are socially constructed and negotiated".

Regarding the human nature, the researcher adopts an intermediate position between voluntarism and determinism. This because, although, in the context of the Libyan engineering public sector is governed by rule and regulations which control and influence the environment, humans have to some extant the ability to interact with and manage their environment.

In connection with the nature of the Libyan society, although there have been changes during the last three decades, these changes are considered by the researcher as systematic development and relatively incremental, accompanied by stability in the political regime. Therefore, the researcher will accept the status quo of the Libyan society and reject the radical humanism paradigm for the purposes of this research.

Finally, the choice of nominalist ontology, an anti-positivist epistemology, an intermediate standpoint on the assumptions regarding human nature, led to the adoption of the 'ideographic' methodological approach. These locate the research within the interpretive paradigm.

2.3 Research Methods.

2.3.1 Case Study Method.

Case study research has during the last two decades become increasingly popular as a means of studying management accounting practice (Scapens, 1990; Humphrey and Scapens, 1996). Johnson and Kaplan (1987) argued that field research could help in bridging the gap between management accounting theory and practice. Scapens and Bromwich (2001) encouraged the use of case studies to explore the boundaries and nature of management accounting.

Case studies attempt to cast light on the context and processes of the phenomenon being studied through detailed investigation. Kohn (1997) states three purposes of the case study method namely: (1) to explore new areas and issues where little theory is available or measurement is unclear; (2) to describe a process or the effects of an event or an intervention, especially when such events affect many different parties; and (3) to explain a complex phenomenon. Morgan and Smircich (1980: 491) explain that

> "the case study for any research method, whether qualitative or quantitative cannot be considered or presented in the abstract, because the choice and adequacy of a method embodies a variety of assumptions regarding the nature of the knowledge and the methods through which that knowledge can be obtained, as well as a set of root assumptions about the nature of the phenomena to be investigated".

Robson (1993) defines a case study as: "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life using multiple sources of evidence (p.146)." Woodside and Wilson (2003) define case study research as: "Inquiry focused on describing,

understanding, predicting, and/or controlling the individual (i.e. process, animal, person, household, organisation, group, industry, culture, or nationality) (P: 506**)**." They explained that any one or combination of the following purposes may serve as the major objective of case study research: description, understanding, prediction, or control. Yin (2003: 23) defines a case study as an empirical inquiry that:

> "Investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used."

When the boundaries between phenomena and context are not clearly separated, Yin asserted that the case study would necessarily include data relating to contextual conditions. Miles and Huberman (1994) define context, such as the context of a person's behaviour, as immediate relevant aspects of situation as well as relevant aspects of the social system in which the person appears (e.g. department, company, community).

Scapens (1990) stated that, a case study could be undertaken in order to investigate the development of management accounting in a particular country. A case study is appropriate when a researcher's concern is directed toward a set of issues in a single organisation, or more than one organisation (Scapens, 1990). Similarly, Ryan, *et al.*, (1992: 113) stated that "A case study, however, usually implies a single unit of analysis. This might be a company, but it could also be a more aggregated unit of analysis". They instanced that; we might undertake a case study of accounting in a particular country**.**

According to Yin (2003: 16) the relevance of research strategy depends on three parameters: (1) the research question being asked, (2) the need for control over contextual variables, and (3) the degree of focus on contemporary as opposed to historical events. Further, Yin explains that the case study approach is the most appropriate research strategy when the research question is concerned with addressing "what" question in exploratory form; "how" and "why" questions as more explanatory. The second condition is the control of the contextual variables is not an option. The third is the focus, preferably, on contemporary as opposed to historical phenomena.

Based on the above parameters, firstly this research is exploratory in nature; it is concerned with the "what" question, what are the interplay between SMA and SM in LPC?. Secondly, the investigation of SMA, like nearly all social science research, has very little control over the contextual variables of the research. Thirdly, this research focuses on the current (contemporary) status of such interplay. Consequently, it was decided to use the case study approach as an appropriate research method for the objectives of this research.

Scapens (1990) and Ryan, *et al.*, (1992), classified accounting case studies, based on the purpose, include: descriptive, illustrative, experimental, exploratory and explanatory case studies. Yin (2003) divided case studies into three categories namely descriptive, exploratory and explanatory. However, the boundaries between descriptive, exploratory and explanatory case studies are not clear cut. The choice of the case study type depends on the context and the research objective(s).

Exploratory case studies are adopted as a prelude to social research, and can be considered as a research method, which provide preliminary investigations that are intended to generate ideas and hypotheses. These hypotheses can be empirically tested in subsequent studies (Ryan, *et al*., 2002). Scapens (1990) illustrated that:

> "Exploratory case studies can be used to explore the reasons for particular accounting practices. As such, they represent preliminary investigations which are intended to generate ideas and hypotheses for rigorous empirical testing at a later stage. The objective is to produce generalizations about the reasons for accounting practices. The exploratory case study is a first step in such a project" (Scapens, 1990: 265)

Descriptive case studies require that the investigator begin with a descriptive theory. Odell (2001:162) explained the descriptive case study as the following:

> "The descriptive case study aims only to document an important event, in order to get the story. This type of case study makes little effort to engage scholarship already published on the subject and little effort to generalize to other cases. Descriptive studies may stimulate scholars to think of new analytical ideas, and these wider benefits depend largely on others".

However, with the descriptive case study the researcher is more interested in a general understanding of the case itself, than in theory building and/or hypothesis generation. Although description needs some preconceived ideas that might be considered the foundation of the theory, the principal purpose of the case study does not directly involve that set of preconceived ideas (Kaarbo and Beasley, 1999). In contrast, explanatory case studies are concerned with the investigation of causal relationships. Yin (2003: 16) stated that:

> "An explanatory case study, even a single-case study can often be used to pursue an explanatory, and not merely exploratory (or descriptive), the analyst's objective should be pose competing explanations for the same set of events and to indicate how such explanations may apply to other situations."

In connection with this study, the descriptive type of case study suited the aims of this study, because as previously mentioned, this study is essentially exploratory in nature and there is no attempt to focus on formulating detailed hypotheses.

2.3.2 Design of Case Study.

The main objective of this research is to expand knowledge and understanding of SMA in the Libyan context. Despite the research publications investigating SMA in the developed countries, the novelty of this work is derived from the status of SMA theory that shows there is a lack of information regarding SMA in the Libyan context.

The scope of this research is to explore the current practices of SMA in two case studies (two companies) in the LPS. Therefore, three areas were considered for investigation in detail: 1) the interplay between SMA and SM.

The first step of the case study method, like any research strategy, quantitative or qualitative, is to state the theory and the set of the research questions to be answered. However, the absence of good theory, particularly in exploring new issues, creates a challenge in conducting case study research. Johnston, *et al.*, (1999) have argued that, “every case study must begin with theory; similar to other research methods, it is the degree to which theory and related hypotheses have been developed prior to data collection that allows for the testing of theory”. They further assert that “when research hypotheses do not drive the research, findings can only be thought of as exploratory and descriptive.” Also, as Yin (2003) noted that this approach is similar to a laboratory scientist conducting a series of experiments. In this way the case studies are used to determine whether “the theory holds up” under the specific conditions and parameters of a given case. Remenyi, *et al.*, (1998) explained that:

> "A case study research is clearly closer to an experimentalist than a theorist; in that case study requires the collection of empirical evidence. The researcher tries to get close to the phenomenon being studied in much the same way as a physical or life scientist does by collecting empirical evidence. A single case study, like a single experiment, can establish the existence of a phenomenon, which in business studies may be adequate for the purposes of exploratory research. Of course one case study, like one experiment, cannot provide sufficient evidence to be able to make robust generalisations but in business studies this may not be essential". (Remenyi et al., 1998: 169)

In this study, the literature was reviewed, in order to guide the research enquiries, and to the evaluation of the empirical findings, in response to the emerging issues from the empirical study.

When conducting a case study, the focus of the research on a specific phenomenon requires specific research question(s) stated as clearly as possible (Ryan, *et al.*, 2002; Stuart, *et al.*, 2002; Yin, 2003), for example: what are the phenomena to be explained?, what is the dependent variable?. The research questions most appropriate for case studies are "what", "how" and "why" questions, i.e, questions focusing on the underlying process, on the linkage between the independent variables and the phenomena to be explained (Kaarbo and Beasley, 1999). Research questions and units of analysis should be chosen to represent and test the current understandings of the research topic. This involves contributing to and building a body of knowledge and developing theory (Stuart, *et al.*, 2002). However, the researcher should then specify which aspects of existing theory will be investigated in order to focus the research question(s). In the present research, one preliminary question is developed in order to guide data collection and analysis.

Study Question: What is the interplay between SMA and strategy (formulation, implementation, and control)?

A questionnaire for semi-structured interviews was prepared, (see Appendix 1) which contained three sets of questions. The questions were refined through pilot interviews.

Yin (2003:) argued that selection of the appropriate unit of analysis results from your accurately specifying the primary research questions, and the definition of the unit of analysis is related to the way the initial research questions have been defined. As suggested by Yin, the appropriate unit of analysis for case study research of the socio-economic phenomenon (for example: a country's economy, an industry, an economic policy) that, when analyzed, provides the greatest insight into the issues and questions of interest to the researcher. However, the emerging issues during the investigation of the phenomenon could lead to a reconsideration of the definition of the unit of analysis (Yin, 2003). In this context, Yin asserts the crucial role of the literature when he explained:

> 'The role of the available research literature needs to be made about defining the case and the unit of analysis. Most researchers will want to compare their findings with previous research; for this reason, key definitions used in your study should not be idiosyncratic. Rather, each case study and unit of analysis either should be similar to those previously studied by others or should innovate in clear, operationally defined ways. In this manner, the previous literature also can become a guide for defining the case and unit of analysis' (Yin, 2003: 26).

In reference to single- or multiple-case designs, Yin noted that "the single-case design is used to confirm or challenge existing theory or to represent a unique or extreme case, where the case serves a revelatory purpose (p: 47)".

The alternative, the multi-case design, is particularly useful in testing theory, where each case is comparable to an experiment in the laboratory. With multi-case design, the researcher can choose each case so that, it either (1) predicts similar results (a literal replication) or (2) produces contrasting results, but for predictable reasons (a theoretical replication). The ability to carry out six or ten case studies that when arranged effectively within a multiple- case design, is similar to the ability to conduct six to ten experiments on related topics; a few cases (two or three) would be a literal replications, whereas a few other cases (four to six) might be designed to pursue two different patterns of theoretical replications. However, a case study's primary unit of analysis may or may not involve embedded, secondary units that become part of the overall study. Furthermore, in research that uses multiple cases, each case is considered as a single case, and thus, the conclusion of each case study feeds as information contributing to the overall research findings (Yin, 2003).

2.3.3 Data Collection Methods.

The case study as a comprehensive research strategy (Yin, 2003) involves using many data collection methods, either quantitative or qualitative, depending on the nature of the research. Woodside and Wilson (2003) stated that "the value of most case study reports may be enhanced considerably by using multiple tools, both qualitative and quantitative methods, in the same study". Yin (2003) identified six sources of evidence in case studies, namely documents, interviews, direct observations, participant-observation situation, physical artefacts and archival records.

Documents could be administrative documents, performance reports, internal reports and studies, memoranda, letters or any document that is appropriate to the investigation. They provide specific details that can support the evidence from interviews and from other sources. Documents are also useful for making inferences about events, and provide communications between the organisation's bodies. The investigation of documentary materials is crucial in collecting the empirical data in order to understand the network of interrelations between the organisation and other external institutions, which is shaped by the external environment. Remenyi, *et al*., (1998) recommend that:

> "It should always be remembered that these documents were written for a reason other than research and thus they may not necessarily accurately reflect the situation" (Remenyi, et al., 1998:176)

Interviews are one of the most important sources of information. Interviews also integrate with evidences collected from other sources in order to avoid dependence on a single form. Patton (1987) commented that the depth interviewing using an interview guide, probes beneath the surface, soliciting detail and providing a holistic understanding of the interviewee's point of view.

Interviews include several forms, such as: structured, semi-structured and un-structured interviews. The structured interview is similar to a survey, and is used to collect data in cases based on detailed and developed questions in advance. In a semi-structured interview, the interviewer has prepared a set of questions in advance, but can modify the order of the questions based on the context of the conversation. In unstructured (completely informal) the interviewer has a general area of interest, but lets the conversation develop within this area (Robson, 1999).

Direct observation is one of the most valuable methods of collecting reliable evidence (Remenyi, *et al.*, 1998). By visiting the company the researcher has the opportunity to observe directly the surroundings, behaviour at meetings, organisation culture and environmental conditions. This technique is useful for providing supportive information about the topic being investigated. On the other hand, participant-observation requires the researcher to be involved in the work of the organisation in which the study is conducted. The technique provides some valuable opportunities for collecting data when used in combination with methods to obtain a comprehensive view of a case study.

Physical artifacts include books, technological devices, tools, instruments and ledgers. By contrast, archival records include staff service and payroll records, old product or service descriptions (Remenyi, *et al.*, 1998).

In this study, data collection techniques were based on a variety of data collection strategies including:

- Semi-structured interviews with number of individual in both cases (see tables 1 and 2 appendix 2).
- Non-participant observation of meeting (see table 3 appendix2)
- Collection of documents including financial and statistical data, internal reports, job descriptions and external reports of Governmental bodies as well as all relevant documents relating to the study.

2.3.4 Validity and Reliability of Case Study

A main criticism of the case study is that it lacks rigour (Stuart, *et al.*, 2002). Yin (2003) provided guidelines for enhancing reliability and validity of case study. He argued that the quality of research could be judged continually (during design, data collection, data analysis and reporting) based on four tests, namely: construct, internal and external validity and reliability that are commonly used to assess any empirical social research including case studies. Cutler (2003) described validity as relating to the nature of our findings, and the degree to which these are true reflections of what we formally state we are dealing with in declaring our aims and objectives. On the other hand, reliability is the extent to which a study's operations can be repeated, with the same results

(Yin, 2003). Kidder and Judd (1986, cited in Yin 2003: 40), distinguished between the four tests as following:

- "Construct validity: establishing correct operational measures for concepts being studies.
- Internal validity: (for explanatory or causal studies only, and not for descriptive or exploratory studies): establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.
- External validity: establishing the domain to which a study's findings can be generalized.
- Reliability: demonstrating that the operations of a study-such as the data collection procedures-can be repeated, with the same results".

Stuart, *et al.*, (2002) illustrated that, in order to enhance construct validity, the research should describe how data was collected via methods such as interviews, documents and observations as well as establishing a chain of evidence. They also asserted the importance of having a review of the key information in the draft case study report (for instance, in terms of this study, the questionnaire for semi-structure interviews was used as check list for interviews and as guide to structure the two cases. Yin (2003) explained that internal validity is concerned with the causal (explanatory) case study, in which the objective is to ascertain whether an event x led to an event y. Yin commented that this logic is not applicable to descriptive or exploratory case studies. In contrast, external validity, deals with the problem of knowing whether case study's findings are generalizable or not.

With respect to reliability, Stuart, *et al.*, (2002) explained that reliability can be enhanced in two ways: the first is to use a case study protocol, and the second is to maintain a case study database, to store the relevant information, which are easily retrieved. This would allow another researcher to repeat the analytical procedures, beginning with raw data. Yin (2003) illustrated that, in multiple case study research, one can examine whether the same patterns or events or thematic constructs are replicated in different settings. Reporting a detailed protocol for data collection would enable researchers to replicate the procedure of a qualitative case study in another setting. Table 1 provides the four commonly used tests and recommended case study tactics.

Table (1) Four Common Tests in Case Study (adapted from Yin 2003: 34)

Tests	Case Study Tactic	Phase of research in which tactic occurs
Construct validity	Use multiple sources of evidence Establish chain of evidence Have key information review draft case study report	Data collection Data collection Composition
Internal validity	Do patter-matching Do explanation-building Address rival explanations Use logic models	Data analysis Data analysis Data analysis Data analysis
External validity	Use theory in single-case studies Use replication logic in multiple-case studies	Research design Research design
Reliability	Use case study protocol Develop case study database	Data collection Data collection

2.3.5 Triangulation and Case Study

The term “triangulation” is adopted as a metaphor describing the use of different techniques of collecting data for a single research project. Yin described the advantages of such techniques as organisational researchers can improve the accuracy of their judgements by collecting different kinds of data bearing on the same phenomenon. Denzin (1989) defined ‘triangulation’ as follows: the combination of methodology in the study of the same phenomenon. Denzin (1989) distinguished between the following four types:

- Data triangulation
- Investigator triangulation
- Theory triangulation
- Methodological triangulation

Data triangulation involves the utilisation of a number of multiple data sources. In investigator triangulation, several researchers simultaneously investigate the same phenomenon, which makes allowance for comparisons. The theory triangulation refers to the adoption of multiple theoretical approaches in the case study. Finally, methodological triangulation involves multiple methodological approaches such as the combination between

quantitative and qualitative (Creswell, 1998). Yin (2003) asserted that case studies can be done by using either qualitative or quantitative evidences or both.

The researcher applied data triangulation in the empirical exploration. The research started by examining relevant studies, following which extensive data was collected from two case studies by conducting a series of semi-structured interviews. The responses of different individuals to the same research question were collected, compared, confirmed and any apparent inconsistencies clarified through further discussion and inquiries. Also the data, interviews, were supported by gathering of written documents; studies and research were gathered from different internal and external sources and supported the data obtained from the interviews. Non-participant observation of meetings was utilised. In order to validate the data collected, cross-check of the data from different sources was conducted.

3. SMA and Strategy Formulation:

Mintzberg and Waters (1985) classified the strategy formulation process based on the definition of strategy as a pattern in a stream1of decisions. They described the range of the strategy formulation process from perfectly deliberate (realised strategy exactly as intended**2**) to perfectly emergent**3**. This range includes a variety of strategy types based on the nature of the strategies that combine various dimensions, such as: 'leadership intentions would be more or less precise, concrete and explicit, and more or less shared, as would intentions existing elsewhere in the organisation; central control over organizational actions would be more or less firm and more or less pervasive; and environment

1 Mintzberg and Waters (1985: 257) explained that streams of behaviour could be isolated and strategies identified as patterns or consistencies in such streams; the origins of these strategies could then be investigated, with particular attention paid to exploring the relationship between leadership plans and intentions and what the organisations actually did.

2 Mintzberg and Waters (1985: 258) stated three conditions for perfectly deliberate strategy namely: 1) there must have existed precise intentions in the organisation, articulated at a relatively concrete level of detail; 2) organisation means collective action, to dispel any possible doubt about whether or not the intentions were organizational, they must have been common to virtually all the actors: either shared as their own or else accepted from leaders, probably in response to some sort of control; 3) these collective intentions must have been realized exactly as intended without any interference of external force.

3- Mintzberg and Waters (1985: 258) explained that in the case of perfectly emergent strategy, 'there must be order, consistency in action over time- in the absence of intention about it, (No consistency means no strategy or at least unrealized strategy- in the absence of intention about it)'.

would be more or less benign, more or less controllable, and more or less predictable"(Mintzberg and Waters,1985: 258).

Company A (Truck and Bus Company) performs as a State-owned company with its objectives negotiated mainly with its owners (Libyan Government 75% and the international partner Iveco 25%) and certain Libyan Governmental bodies (Secretariats of Industry, Planning and Control). These objectives are articulated in the Company Strategy Statement. The nature of its products and the condition of the Libyan market is relatively predictable and controllable. Therefore, Company A's strategy formulation is located between Planned[4] and Entrepreneurial[5] types. The emergent components of Company A's strategy, result from changes in the Government's requirements and/ or the consequences of governmental policies. The emergent components are dealt with through the review of the company strategy, and formulate plans.

Company B (General Electronics Company)'s strategy formulation process can be described as a process[6] strategy formulation type. The Company is wholly owned by the Libyan Public Sector; its objectives are negotiated with its stakeholders and formalised in the Company Strategy Statement. The strategy is then translated into processes, plans, budgets and procedures. The top management and the Policy Review Committee within Company B formulate strategy originally deliberately (based on the procedures which are adopted by the Company in response to the requirements of various Governmental bodies), and also emergently in response to changes in the external environment.

The strategic planning in both Companies A and B aims to serve the needs and expectations of the stakeholders[7], namely, customers, society (the State as both owner and regulator), employees and the Environment General Authority

4- Planned strategy= 'Strategies originate in formal plans: precise intentions, formulated and articulated by central leadership, backed up by formal controls to ensure surprise-free implementation in benign, controllable or predictable environment; strategies most deliberate' (Mintzberg and Waters, 1985: 270).

5- Entrepreneurial strategy= 'Strategies originate in central vision: intentions exist as personal, unarticulated vision of single leader, and so adaptable to new opportunities; organisation under personal control of leader and located in protected niche in environment; strategies relatively deliberate but can emerge' (Mintzberg and Waters, 1985: 270).

6- Process strategy= 'Strategies that originate in process: leadership controls process aspects of strategy (hiring, structure, etc.), leaving content aspects to other actors; strategies partly deliberate, partly emergent (and, again, deliberately emergent) (Mintzberg and Waters, 1985: 270).

7- The Companies' stakeholders are identified by the Chairman of Company A and the Secretary of Company B.

and the companies' management, as well as the international partner, Iveco (Company A). Although, negotiating and agreeing a balance among the needs of each stakeholder group is a protracted, complex and recurring process, it is the foundation of strategic management in both Companies A and B.

Transformations in the Libyan economy, such as the role of the private sector, and the changes in economic policy that have resulted in new legislation relating to international trade (openness policy) have weakened the monopolistic position of most of the Libyan Public Sector organisations. Competition has lead to a different approach to strategic planning from operations-oriented to market-oriented. Competition has also changed the relative importance of main stakeholders within the Libyan business environment; the customer is now a much more important stakeholder than before.

The problem encountered in the Libyan Industrial Public Sector, in general, and the two Case Companies, in particular, is the conflict and the overlap between business objectives at micro-(company) and macro-(Libyan society) levels. Theoretically[8], Libyan companies are investment centres, which should focus on achieving profit targets among other objectives, but they are also obliged to focus on achieving production targets, which are imposed by Secretariat of Industry (GPC, 2001; Qadhafi, 2000). The link between these centrally imposed production targets[9] and company strategy has frequently been very tenuous, so that overall efficiency and effectiveness was compromised[10]. For example, the Libyan Engineering Public Sector is owned by the Libyan state to provide goods to the community rather than to make a profit (Law of GPCom, 1981); this sector is also required to achieve a set of societal objectives, based on the Libyan Social and Economic Development Plans. On the other hand, one of the main objectives of the various national Development Plans is to diversify the sources of the Libyan national income through the establishment of Public Companies, which harness national resources and provide employment.

The importance of PM in supporting the formulation, implementation and control of strategy is recognised by Companies A and B. Both Companies

8- Based on Libyan commercial law, and the Articles of Association of the Libyan Public Companies, all Libyan companies are investment centres, which were and are required by the Libyan state to invest the resources of the state so as to achieve tangible and intangible benefits for the Libyan community.

9- Targets of the Industrial Public Sector, which are drown from the strategies of the Secretariat of Industry.

10- The nature of strategy, which requires flexibility in response to the external circumstances, was neglected.

establish and understand the present strategic position as well as the Companies' strategic issues, through PM and performance analysis. PM in both Companies is an important means of assessing past strategies. Companies A and B formulate their strategies based on PM outcomes. PM provides an overview about the business characteristics that will influence strategic options, through investigation of the past and present strategies as well as the competitive capabilities. In this context, Neely (1998) presents four roles of PM, specifically: check position, communicate position, confirm priorities and compel progress. He states that:

> 'Checking position is an essential role for measurement. Without the right measures in place everything from strategic planning to local level operational improvement becomes unreliable at best and impossible at worst. Without measures there is no way of checking whether the plans, either strategic or tactical, are appropriate or delivering the desired results. They enable managers to monitor how performance has changed over time, and to establish whether all of the time and effort they have put in to their improvement programmes is paying off. Also measures as a means of established position (knowing where you are and what you have to do better) is essential if you want to deliver excellent customer service (Neely, 1998: 71-72)'.

Following identification of the Companies' opportunities (SWOT analysis) in terms of their stakeholders' requirements, the capabilities of both Companies A and B are assessed by the Companies' management teams in order to conduct performance gap analysis. Based on a performance review, the Companies evaluate their objectives and strategies, which provide a basis for any necessary amendments. Nevertheless, the formulated strategies and objectives of the Companies are the foundation for developing[11] the new PMSs in both Companies.

This strategy-PMS relationship is consistent with the recommendation of Eccles (1991) that the strategic PMS should be amended if the strategy is changed. Kaplan and Norton (1996) argued that the Balanced Scorecard as a PMS is designed to facilitate the linking of strategic objectives and plans with management behaviour and organisational performance. Langfield-Smith (1997) stated that strategic performance measures must be aligned with the organisation's strategy. Similarly, Otley (1999) suggested that the strategic PMS should be refined quite often in accordance with a changing environment and emergent strategies.

11- This shows the interplay between strategy formulation and PMS design, although the PMSs of Companies A and B are based on the strategic objectives of the Companies, they also contribute to the formulation of those objectives.

4. SMA and Strategy Implementation:

The management teams of Companies A and B translate strategic goals into the detailed plans, programmes, budgets and procedures, required for the Companies' strategy implementation stage. As a result, they link the strategy to day-to-day activities; the PMSs of both Companies are pivotal to the on-going activity of linking strategy and operations. Company A reviews progress against plan, and evaluates the intended strategy in the context of developments since the formulation of that strategy. It uses key performance indicators such as profitability, productivity, sales, employee satisfaction, and customer satisfaction as well as the budgetary system. These indicators are designed to control the important dimensions of Company A's strategic objectives; they are measured frequently during the entire period of strategy implementation. The meetings and reporting system, as well as comparative analyses, facilitate identifying any barriers to successfully implementing the Company's strategies.

By contrast, Company B pays relatively more attention to customer satisfaction; they also use a budgetary system in order to support strategy implementation. The budget[12]provides the most important tools, by which Company B aligns its activities to the requirements of the strategy.

PM plays a crucial role in communicating the Companies' strategies in order to support for strategy implementation. Company A's Chairman considers PM as the life blood of the strategy implementation process, by which strategies are continually evaluated and communicated. Kaplan and Norton (2000) argue that a strategic performance management and measurement system is a communication system. They emphasise that the new focus on the design of PMSs is how well they drive behaviour by clearly communicating the organisations' strategy. Kaplan and Norton (1996a) state that:

> 'Those companies that can translate their strategy into their measurement system, are far better able to execute their strategy because they can communicate their objectives and their targets' (Kaplan and Norton, 1996: 32).

The communication and discussion that the weekly and quarterly meetings generate are essentially about simultaneously balancing market opportunities and competitive threats with the Company's competitive advantages and relative weaknesses. The process, which is supported by many informal meetings and communications, is intended to assess performance levels and to analyse what happened and where. The most important role of PM, however, is highlighting problem areas and focusing attention on actions that will influence strategy implementation. A major difficulty in both Companies A and B relates

12- Companies A and B monitor their operations within the boundaries of the approved master budget, which must be submitted to Secretariat of Industry.

to the organisational and management demands of the emergent components of strategy that is necessary to cope with rapid change. The need to respond rapidly to events, the details and impact of which are usually unpredictable, is constrained by the need to operate within a central planning model that works well in a relatively stable environment but is too slow in more dynamic business conditions. In effect, Companies A and B must manage twin strategies: the planned strategy that is predicated on continuity and incremental developments, and the emergent strategy necessary to cope with discontinuities and non-linear developments in the environment. Managing deliberate and emergent strategic components, or in some circumstances dual strategies (Abell, 1999; Markides, 1999; Markides and Charitou, 2004) are much more challenging than managing a single strategy (Miles and Snow, 1978; Aspesi and Vardhan, 1999). In particular, each distinct strategy, or strategy component, requires a tailored, performance management and measurement approach.

The nature of Company A's activities and products13 in the Libyan market mean that its operating environment is relatively stable and predictable. Consequently, Company A's corporate strategies are mostly deliberate. The emergent component of Company A's strategy is driven by feedback from the control system, including the PMS as well as new information relating to both the immediate and general environments of the Company14. By contrast, the strategy in company B is much more emergent, which reflects the dynamic of the electronics industry. This industry is highly dependent on innovation that by its nature cannot be perfectly planned in advance, especially within the developing Libyan market. Consequently, the strategy formulation process in Company B has become less deliberate and more incremental as management assesses new information and responds accordingly. This dynamic creates a problem with regard to development and redesign of the PMS in response to changes in the Company strategy.

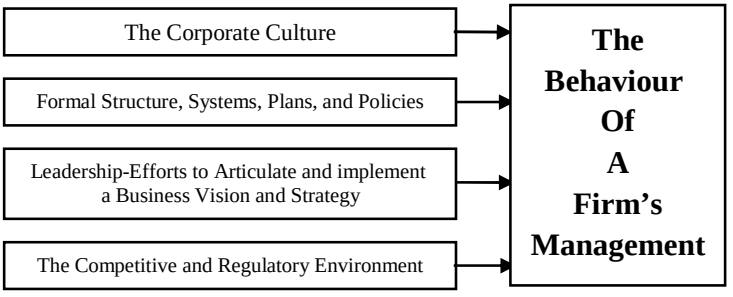
13- The nature of the products of Company A, which required a relatively high level of investment (the cost of the company's products ranges from $32,000 to $120,000), creates an advantage for Company A, and competitors have difficulty entering the Libyan market. Also, the reputation of its products, for suitability to the Libyan environment creates competitive advantage.

14- Atkinson *et al*. (1997) argued that management control systems must provide the stability necessary to meet users' needs efficiently, while simultaneously creating an information environment that permits mangers to envision, and respond to new directions for the organisation.

Both Companies A and B link the Incentives and rewards15 systems to company performance. Two types of incentives (individual, general) exist: Individual incentives and rewards (relatively subjective) are awarded for personal aptitude on the recommendation of managers; on the other hand, general incentives16are usually based on the level of profit achieved by the company, which is strongly influenced by market circumstances regardless of the level of individual performance. General incentives are distributed by top management to all company employees equally, which leads to dissatisfaction with the reward system among employees, resulting from the tenuous link between their actual performance and the rewards.

Theories of motivation, like equity theory (Armstrong and Murlis, 1991), suggest that employee dissatisfaction with the relationship between performance and rewards is likely to adversely affect corporate performance. However, it is difficult to measure this possible effect because of the number of other factors that influence individual behaviour and performance. For example, Kotler and Heskett (1992), found four specific factors that influence management behaviour (Figure,2)

Figure (2) Four Factors that shape Managerial Behavior



15- Armstrong and Murlis (1991: 18) identified reward management as 'the process of developing and implementing strategies, policies and systems which help the organisation to achieve its objectives by obtaining and keeping the people it needs, and by increasing their motivation and commitment'.

16- Armstrong and Murlis (1991:18) stated that: 'Organisations must reward employees because, in return, they are looking for certain kinds of behaviuor: they need competent individuals who agree to work with a high level of performance and loyalty. Individual employees, in exchange for their commitment, expect certain extrinsic rewards in forms of promotions, salary, fringe benefits, perquisites, bonuses or stock options. Individuals also seek intrinsic rewards such as feelings of competence, achievement, and responsibility. Employees will judge the adequacy of their exchange with the organisation by assessing both sets of rewards.'

Source: Kotler and Heskett (1992: 7)

Clearly, technical and interpersonal skills as well as experience and effort also affect performance. Conventional wisdom suggests that it costs a fortune and takes forever to change culture (Nixon, 1987) but changing the PM system and closely aligning it to the reward system can quickly bring about changes in behaviors.

5. SMA and Control :

Simons (2000) stresses the importance of the link between strategy and control, demonstrating that the PMS provides the primary mechanism for formalising and communicating business strategy and monitoring implementation. However, Simons (1995) distinguished between four levers of control, related to different aspects of strategy. Strategy is viewed as diagnostic control systems as plan, interactive control systems as patterns of action, boundary systems as position, and beliefs systems as perspective. These four control levers are related, as they are working simultaneously even though for different purposes (Simons, 1995. In this section Simons' (1995) levers of control provide a basis for analysis of the two Case Companies' strategic management systems.

Simons' diagnostic[17]controls relate to on-going activities that are relatively predictable, in which performance is compared with targets and deviations identified and acted upon. So much of the PMS is, in Simons' terms diagnostic, that is, on-going and intended to deal with relatively predictable activities and what Mintzberg called 'deliberate' strategy. The PMS component that is diagnostic is dealt with on the basis of significant variance from planned performance.

Both Companies A and B use PMS primarily as a diagnostic control system throughout the entire company, with a set of tools, including budgets, financial ratios, internal financial and non-financial reports and formal and informal meetings. These tools are used to inform discussions in daily, monthly and annual meetings. Measures of performance against targets are provided as part of a management-by-exceptions. It helps to identify areas that require attention. Performance evaluation is always considered in the context of both the measurement indicators and the limitations of targets; corrective action to address variances and take account of new information allows for limitations inherent in both the targets and the measures.

17- Simons (1995) defined diagnostic control systems as 'the formal information systems that managers use to monitor organisational outcomes and correct deviations from preset standards of performance' .

The internal, financial and non-financial controls and regular reports are used primarily as diagnostic control systems, where managers use the reports to focus on exceptions and react to problem areas. In both Companies, the internal, financial and non-financial controls are based on a set of policies and procedures, which inform standards for management actions and operations at the company level as well as in the company's daily operational activities to support strategy implementation. This is achieved through providing management with information concerning desirable/undesirable behaviours and variations within the Company's strategy and operations at all company levels.

The interactive[18]controls relate to activities which top management regard as strategically important but relatively unpredictable. Diagnostic controls are, therefore, institutionalised in the organisation's systems and structure whereas interactive controls are more *ad hoc*; top management monitor the outcomes of the diagnostic controls on an exception basis, for example, budget variance reports, but focus carefully on interactive controls. This dichotomy between diagnostic and interactive controls acknowledges the emergent components of strategy. However, the component of the PMS that is 'interactive' is monitored carefully by top management, partly, because the activities under review are strategic in nature and partly because they are so difficult to predict that reliable targets and detailed plans cannot be set.

PM in both Companies A and B is used interactively, providing opportunities for broad discussion and problem solving[19]. The communication and discussion in the daily, weekly and monthly meetings is aimed to assess performance levels and to analyse what happens in order to highlight problems and focus attention on the emergent issues that will influence strategy implementation[20]. In both Companies A and B relationship of management with stakeholders appears to be part of the interactive control system, for example, the interactions with customers' demands; the requirements of the

18- Simons (1995) defined interactive control systems as 'the formal information systems that managers use to personally involve themselves in the decision activities of subordinates' .

19- For example, in Company B, the uncertainties that caused by changes in technology (the nature of the electronics industry), competition and developments in customer demand, resulting from the changes in Libyan economic environment. Interactive control in company B is performed in the Company's meetings of discussion the changes in the market, thus the consequences for strategy implementation.

20- In Company A there is a clear link between diagnostic and interactive control systems. The outcomes of the meetings at the Company's factories and production lines are used in budgets, which provide feedback about the effects on strategy implementation and communicate these outcomes in a bottom-up direction.

government, and emergent needs of employees that can influence company performance.

Boundary systems, the third of Simons' levers, communicate specific risks to be avoided. A basic business conduct boundary is that defines and communicates a standard of business conduct for all employees. Business conduct boundaries are known as codes of business conduct (Simons, 2000). Boundary systems are evident in Company B in aspects such as using ISO 9000 and the requirement to comply with the national development plans of the Secretariat of Industry. Also some of the goals, for example, the return on investment, as well as the compliance with the Governmental regulations (General Environmental Authority) can be seen as boundaries. In Company A, the objectives in the Articles of Association, are used as boundary systems, which are imposed by the Owners. Moreover, the Company procedures and rules that cover operations can be regarded as boundary systems. The laws and regulations of the Libyan Government[21] provide a fundamental boundary for the Company strategy.

Belief systems[22] communicate top managers' values, purposes and direction for an organisation. A distinction can be drawn between 'values', where it is crucial to take into account the perspectives of different stakeholders, and 'value', where the primary goal is to maximise profit for the shareholders. This is similar to Whittington's (2001) Generic Perspectives on Strategy, where the vertical axis measures the degree to which strategy either produces profit-maximising outcomes or deviates from that aim to allow other possibilities (pluralistic outcomes).

Both Companies A and B, as Public Sector companies, operate according to their various stakeholders' needs and requirements. As discussed earlier, both Companies consider a number of stakeholders, namely, customers, society (the state as owners and regulator), employees, Environmental General Authority, companies' management as well as the international partner Iveco in the case of company A. The purposes of both Companies A and B as contained in the statement of corporate strategy are communicated throughout both Companies and shape part of the belief systems. In both Companies the employees understand the roles and the importance of their Companies, and their contributions to Libyan society. In Company A, the Chairman asserted that they tried during the last decades to unify the interests of the different stakeholders,

21- Company A is required to comply with environmental regulation regarding the specifications of its products' engines.

22- 'Belief systems are the explicit set of organisational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organisation' (Simons, 1993).

which has resulted in a belief among the employees that the Company is serving their interests. Both Companies A and B formulate and implement their strategies, as well as measure their performance in six areas namely, Customers, Society, Employees, Financial, Production and Environmental. PM information is distributed internally within the Companies and externally for the stakeholders by the Chairman of Company A and the Secretary of Company B. The distributed PM information provides transparency. For example, the performance of the Libyan Public Sector is discussed in the General People's Congress, based on the PM information provided by the public companies. This discussion led to a change in the beliefs of Libyan society, about the Libyan Public Sector, which necessitated reappraisal of its role in the Libya.

In both Companies A and B, the difficulties in the links between short-and long-term plans are due to the dynamic and rapid changes of the external environment23, which conflicts with governmental inflexibility24. A major issue of operational control in Company B relates to bureaucracy and routine, which is, in part, a result of the Company's relationships with the central Government and the requirements of the external controls. The confluence of external bureaucracy and the difficulty of adopting new production methods as well as the length of the Procedures Cycle25are regarded as problems that affect the Company's capability to respond quickly to emergent opportunities and threats. Operating control systems within the Libyan Public Sector reflect the centralised external control structure in Libya. It is largely imposed by Secretariat of Control to avoid mismanagement and corruption. It was originally designed to achieve high levels of control over the Libyan Public Sector's activities on a daily basis. It includes documentary cycles, which provide a guideline for people and actions in short-term operations.

23- Company B is strongly affected by changes in the external environment, because of the nature of its products.

24- Both the internal control system (imposed by the Secretariat of Control) and external control (of the Secretariat of Control and other Governmental bodies) constrain the Company flexibility to respond to emergent issues.

25- Procedures Cycle is part of the official control system of the Libyan Public Sector. This Cycle is imposed by the Secretariat of Control, which identifies certain steps and regulations for the company processes. It is regarded as important for external control that each process in the Cycle is documented contains a number of steps, each with certain procedures which must be signed by an authorised person in the company. Progress will be blocked, if any signature is missing for any reason. This is the case in sales, purchases, maintenance, and any other operations department or section within the Companies. This problem affects performance.

Governmental control reviews company performance based on the Libyan Industrial Public Sector strategy and Libyan general policies and regulations. These are, in turn, based on bureaucratic and rigid rules and procedures, which were designed for a business environment that was more stable, less dynamic, than the environment that, in different ways, confronts Companies A and B today. Consequently, the external control agencies constrain the flexibility and rapid response capabilities needed, which create a gap between the roles of external controls and the organisational requirements necessary to respond in a strategically appropriate way to 'disruptive change' (Christensen, 1997) and discontinuities (Prahaland, 1998).

Whittington (2001) provided four generic approaches along two dimensions, which differ fundamentally: the vertical axis describes the outcomes of strategy (single goal, profit-maximising strategies or pluralistic, multiple-goal strategies); and the horizontal axis considers processes, reflecting how far strategies are the product of deliberate calculation or whether they emerge by accident or inertia (Deliberate or Emergent). The intersection of these two dimensions creates Whittington's four generic perspectives on strategy, Classical[26], Evolutionary[27], Systemic[28] and Processual[29]. Based on the above discussion the two case studies can be situated within the Whittington framework as follows:

Company A's strategy formulation lies in the deliberate half of Mintzberg and Waters' Deliberate-Emergent strategy continuum (between Planned and Entrepreneurial types), whereas, Company B's strategy formulation process was

26- The Classical strategy model is characterised by the following: deliberate, formal, planned, top down, hierarchical strategy and separation between formulation and implementation. The rational economic person, and related profit-maximisation and efficient market are underlying assumptions, resulting in planning for the long-term rather than short-term opportunism (Whittington, 2001:11).

27- The Evolutionary strategy model is also based on the economic assumptions of profit-maximisation and efficient markets but relaxes the assumption of rationality, as it is no longer considered possible to predict the external environment in order to deliberately plan competitive survival strategies, as in the classical perspective. Instead survival depends on natural selection by the market (Whittington, 2001:13).

28- The Systemic strategy model views strategy as embedded within a social system. It sees as socially constructed and therefore strategy may be planned and deliberate through making it appropriate for the social context (Whittington, 2001:18).

29- The Processual strategy model shares the preceding model's bounded rationality, but relaxes the efficient markets assumption. It assumes that markets allow firms to be inefficient. Individuals within organisations have their own personal goals and must negotiate and compromise to reach compromise and shared goals. Strategy is crafted and emerges (Whittington, 2001:16).

originally deliberate with strong emergent influences, namely the changes in the external environment. The turbulent environment gives rise to an emergent strategy component. However, as discussed earlier, strategy formulation in both Companies A and B aims to balance the needs and expectations of a number of stakeholders (both Companies A and B have multiple objectives reflecting consideration of their stakeholders). This need to meet the needs of stakeholders gives rise to an extensive process of discussion and negotiation. Therefore, the two Companies are located in the Pluralistic side of the strategy outcomes continuum. Company A fits the Systemic perspective (it is clearly pluralistic with deliberate processes of strategy formulation). Company B, in part, fits the Systemic perspective, and partly, also fits the Processual perspective, as the company first formulates deliberate strategy but also pursues an emergent strategy in order to cope with unanticipated changes in the external environment.

6. Summary and Conclusions:

This paper provided a discussion of two case studies in the Libyan Public sector, namely Truck and Bus Company (A) and General Electronics Company (B). Company A represents the Vehicles industry, and Company B represents the electronics industry in Libya.

The purpose of this research was, to explore the interaction between Strategic Management Accounting (SMA) and Strategic Management. In doing so the interplay between Performance Measurement as SMA system and the formulation, implementation and control of strategy was investigated.

The strategy of Company A is mostly systematic and deliberate; this approach reflects in large part the nature of its production process, the degree of its influence by the market and the level of competition in the Libyan Truck and Bus market. The Company adopts a more incremental or 'emergent', approach to the less predictable elements of its operating environment; unanticipated developments are evaluated in the context of existing plans and resources. The electronics sector in which Company B operates is much more dynamic in terms of technologies, industry structure, products and customer requirements than the Truck and Bus Company in Libya. Consequently, the actual strategy of Company B is much more emergent and an emphasis is placed on maintaining a fast response capability to unforeseen opportunities and threats. Nevertheless, Company B is required to formulate and submit strategy for approval by the Secretariat of Industry. This latter strategy is the deliberate component but retrospectively accounts for less of the Companies performance than the emergent decisions. The need for both Companies A and B to manage both the

predictable and unpredictable, to operate not one but two strategies simultaneously places a premium on flexibility in the design and use of the PM.

The formulation of strategies in both Companies A and B is intended to serve the needs and expectations of its stakeholders namely: customers, society (the State as both owner and regulator), employees and the Environment General Authority and the companies' management, as well as the international partner, Iveco (Company A). As a result of the development in the Libyan economy, strategy formulation has moved from operations-orientation to market-orientation.

PM plays a crucial role in supporting strategy formulation of both Companies A and B. PM outcomes and performance gap analysis facilitate strategy formulation through assessing the outcomes of past strategies as well as enhancing an understanding of present strategic position. PM outcomes facilitate the companies' evaluation of objectives and strategies and provide a basis for any necessary amendments. The formulated strategies and companies' objectives are in turn the foundation for developing the new PM system in both companies.

The PMSs of both companies are essential to align on-going activities to intended strategies. PM plays a crucial role by which strategies are continually evaluated and communicated in order to support strategy implementation. The meetings and reporting system as well as comparative analyses facilitate identification of any barriers to successful implementation of the companies' strategies. The process, which is supported by many informal meetings and communications, is intended to assess performance levels and to analyse what happened and where. Measures of performance against targets are provided as part of a management-by-exception activity which helps to identify the need for corrective action and areas that require attention.

PMSs are used by both companies A and B primarily as an on-going 'diagnostic' control, including set of tools such as budgets, financial ratios, internal financial and non-financial reports. These tools are used to inform discussions in daily, monthly and annual (formal and informal) meetings. PM in both companies A and B is also used interactively to evaluate unpredicted developments and new information. The communication and discussion in these meetings assess and analyse performance levels in order to highlight problems and focus attention on the emergent issues that will influence strategy implementation.

Conceptually PM is intended to support strategic management (Kaplan and Norton, 2001). The empirical context of Companies A and B suggested that the deliberate-emergent concepts of strategy (Mintzberg and Waters, 1985), the four generic perspectives of strategy (Whittington, 2001) and Simons' model of

control (1995), would together provide a good conceptual framework to analyse the empirical data. Both companies are located in the Pluralistic, or stakeholder, side of the strategy outcomes dimension of Whittington.

The analysis suggests that no one PM system regardless of how technically sophisticated it is, how well it is maintained and how efficiently it is operated can simultaneously provide the information needed to manage performance that is affected by both deliberate and emergent strategies, external control and internal operations. The Systemic and Processualist perspectives of strategy both entail a great deal of negotiation and a participative approach to performance management that is evident in both companies. To some extent the social and informal controls compensate for the technical limitations of the PM systems operated and the constraints (notably Governmental and society constraints). To judge from the analyses and conclusions of authors Miles and Snow (1978), Abell (1999), Aspesi and Vardhan (1999) and Markides (1999) who have focused on the administrative arrangements required to support dual strategies there is no easy solution (Miles and Snow, 1978; Abell, 1999; Aspesi and Vardhan, 1999; Markides, 1999).

In so far as strategy is the intervening variable between the organisation and the environment and the PM system is designed to support strategy implementation, a gap between the external environment and PM system should not, in principle, exist. However, it is clear that PM is not a precise technical science; not only is the context constantly changing but the technical features of PM must taken account of the cultural and behavioural dimensions.

The competitive and technological environments of a company often compels it to simultaneously pursue both ‘defensive’ and ‘offensive’ strategies (Miles and Snow, 1978), to compete in some product/market areas on ‘low price’ and on ‘product differentiation’ (Porter, 1985) in other areas, to compete today while preparing for tomorrow’ (Abell, 1999). There are advantages and disadvantages in integrating strategies but separation also has pros and cons (Campbell, 2005)**.** Abell’s claim in 1999 that ‘a single-strategy approach cannot-meet the challenges created by accelerating competition and change’ (P: 2) seems no less relevant in the Libyan environment of the early 21st century. A corollary of pursuing parallel strategies or restructuring to create relatively autonomous units is that the management control and PM system needs to be tailored to the requirements of each strategy.

ملخـص:

التفاعل بين المحاسبة الإدارية الإستراتيجية والإدارة الإستراتيجية

(حالات من القطاع العام في ليبيا)

تناقش وتحلل هذه الورقة حالتين من القطاع العام في ليبيا بهدف بحث التفاعل بين كل من المحاسبة الإدارية الإستراتيجية والإدارة الإستراتيجية. تم استخدام إطار للإدارة الإستراتيجية يتضمن: (المدى المتدرج) الخاص بصياغة الإستراتيجية والذي تم تطويره بواسطة (**Mintzberg and Waters 1985**) (مخطط – طارئ)، كذلك تم استخدام نظام الرقابة الإستراتيجية الذي تم تطويره بواسطة **Simons (1995)** لاختبار نظم الإدارة الإستراتيجية في الحالتين. وتم استخدام الأبعاد العامة للإستراتيجية **(Whittington, 2001)** لفهم المفاهيم الجوهرية المتعلقة بالاختلافات الجوهرية بين اقتصاديات السوق والاقتصاد الاشتراكي – بين مدخل حملة الأسهم ومدخل الإطراف ذات المصالح.

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Appendix (1) A questionnaire for semi-structured interviews

1- Strategy Formulation.

1.1- What is the purpose/Mission of the organisation?

1.2- How is strategy formulated?

1.3- What perspectives are formally considered?

1.4- How are the strategic goals of each perspective made explicit?

1.5- How are the strategic goals for the organisation agreed?

1.6- To what extent is corporate strategy,

(A) Planned?

(B) Emergent?

2- Strategy Implementation.

2.1 What is the link between planning and implementation?

2.2 Are individuals (teams responsible for strategy implementation) also involved in strategy formulation?

3- Strategic Control.

3.1- How are strategic plans supported by,

- Internal financial controls?
- Internal Non-financial controls?
- Incentives and rewards System?
- External financial and non-financial control?

3.2- How does the control system address environmental features like?

(A) Uncertainty and risk.

(B) Rapid change.

(C) Knowledge-intensive activities.

(D) Alliances and collaborative arrangements.

Appendix 2

Table (1) Interviewees who Participated in Company (A) Case Study

	Interviewees	No.
1	Chairman	2
2	General Manager	2
3	Economic Operations Director	2
4	Production Director	2
5	Technical Operations Director	1
6	Planning Manager	3
7	Financial Accounting Manager	2
8	Quality Control Manager	2
9	Financial Controller	2
10	Internal Control Manager	3
11	Internal Auditing Manager	1
12	Sales and Services After-Sales Manager	1
13	Information and Documentations Manager	1
////	Total	24

Table (2) Interviewees Who Participated in the GEC Case Study

	Interviewees	No. of interviews
1	Secretary (Chairman)	1
2	Company Consultant	2
3	Manager of Electronics Complex Tripoli	1
4	Head of the Policy Review Committee	2
5	General Management of Engineering Director	2
6	Research and Consultancy Manager	1
7	Budgeting and Financial Planning Manager	2
8	Quality Control Manager	1
9	Internal Control Manager	2
10	Production Planning Manager	1
11	Commercial Manager	2
12	Cost Accounting and Inventory Control Manager	2
////	Total	19

Table (3) Meetings Attended by Researcher

	Meetings	No.
1	Board of Directors Meeting	1
2	Administration Meetings	2
3	Meeting of the PM Implementation Committee	1
////	Total	4